AN EVALUATION OF THE EFFECTIVENESS OF AN EDUCATIONAL INTERVENTION IN DEVELOPING TRANSFORMATIONAL LEADERS IN NURSING

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN THE GRADUATE SCHOOL OF THE

TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

BY

ROSE SENEGAL, B.S.N., M.B.A.

DENTON, TEXAS

AUGUST 2010

TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS

December 15, 2009

To the Dean of the Graduate School:

I am submitting herewith a dissertation written by Rose Senegal entitled "An evaluation of the Effectiveness of an Educational Intervention in Developing Transformational Leaders in Nursing." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Nursing Science.

Sandra Cesario

Sandra Cesario Ph.D., Major Professor

We have read this dissertation and recommend its acceptance:

Dissertation/Theses signature page is here.

To protect individuals we have covered their signatures.

ACKNOWLDEGMENTS

A special thanks to my family and friends who were my greatest supporters and biggest fans. Your love and encouragement inspired and motivated me.

ABSTRACT

ROSE SENEGAL

AN EVALUATION OF THE EFFECTIVENESS OF AN EDUCATIONAL INTERVENTION IN DEVELOPING TRANSFORMATIONAL LEADERS IN NURSING

AUGUST 2010

Healthcare leadership includes a commitment to patient-related outcomes. Safe, efficient, patient-centered care is a standard for all healthcare systems. The 2003 Institute of Medicine (IOM) report on patient safety and quality healthcare calls for transformational leadership in healthcare organizations to change systems and improve the quality and safety of patient care. Transformational leadership style is key to transforming nursing work environments that lead to a reduction in adverse patient outcomes. The purpose of this study was to examine the effects of a leadership education program on changing behavioral attributes of nurse managers from a transactional leadership style to a more transformational leadership style. Using the Bass and Avolio Model of Transformational Leadership Style as a theoretical framework, a two-group randomized post test design was used to analyze the effect of a two month educational intervention that focused on learning transformational leadership characteristics coupled with coaching and mentoring.

Data for this study was analyzed using descriptive statistics for the sample output and the Fisher Exact test for participant data to determine the significance of change in

leadership attributes and characteristics immediately post intervention and again thirty days post completion of the intervention to establish a measure of data retention by participants. Findings of this study indicated that 72% of the nurse managers in the intervention group had transformational leadership scores above 3.5 and transactional leadership scores below 2.0 immediately post intervention which suggests that nurse managers can develop transformational leadership attributes through education, coaching and mentoring.

The interest for this study was derived from gaps in the literature in identifying leadership style that would support the role of the nurse manager as an effective leader in our current healthcare environment where data and patient outcomes are now becoming a matter of public record for all. Transformational leadership style was examined as a process for both change and development based on exhibited attributes and characteristics in this study. The education program appeared to be an effective intervention for developing transformational leadership characteristics and changing transactional leadership attributes used by nurse managers in their day to day work.

TABLE OF CONTENTS

PAGE

LIST OF TABLES

Table Page

LIST OF FIGURES

Figure Page

CHAPTER I

INTRODUCTION

Focus of Inquiry

The nurse manager is the member of the nursing leadership team that is directly linked to the staff nurse and the patient care environment. Developing future nurse leaders is one of the greatest challenges faced by the nursing profession (Mahoney, 2001). Transformational leadership is well suited for today's rapidly changing health care environment where adaptation is very important. Transformational leadership behaviors are not inherent to most leaders and are best learned by understanding the attributes of being transformational and through coaching and mentoring (Outhwaite, 2003).

Navigating today's work environment can be challenging and frustrating for nurses as the demands for providing quality care, learning and using multiple technology systems, keeping up with evidence based practice and satisfying various groups of people at all levels of the healthcare environment expands. The role of the nurse manager is pivotal in assisting and supporting nurses at the bedside to minimize the effects of everyday pressure and stress to provide care and to juggle the demands of the complex work environment nurses must function and perform well in on a daily basis while providing quality patient care. Leadership style of the nurse manager influences the attitude and commitment of the staff nurse toward quality outcomes and safe patient care.

Bass, 1999 discovered that despite years of research and testing of leadership and management theories, something was still missing from the ever more complex models of leadership and management. The missing elements was the ability to respond to rapid change cycles and to instill in people a sense of mission that goes beyond their need for positive working relationships or adequate rewards. Transformational leadership is a response to a contemporary search for meaning and to increasingly rapid and intense change. It reconsiders the characteristics of the leader and manager, reemphasizes the vision that the leader or manager shares with the group, and stresses the importance of preparing people for change. Transformational leadership theory represents an interesting crosscurrent in leadership and management theory. Managers and leaders who are successful in leading through the challenges above have mastered the management of themselves. Managing yourself is the foundation to building transformational leadership characteristics and attributes.

Behavioral theories of leadership focus on the behavior or functions of the leader. There are five styles of leadership that are characterized as behavioral leadership: authoritarian, democratic, laissez-faire, transactional and transformational. The authoritarian leader is highly controlling and directive compared to the democratic leader, who encourages participation in goal setting and in planning work. The laissez-faire leader is passive and nondirective (Tappen, 2001).

Bass 1999 identified the disadvantages of using an authoritarian, democratic and laissez-faire approach to leadership. The authoritarian approach creates stress on fellow

employees and makes the work environment itself not such a fun place to be. The democratic approach depends on the knowledge of his followers or employees. If the workforce is inexperienced, this style is not very effective and alienates new nurse (Tappen, 2001). According to Bass 1999, the laissez-faire approach to leadership makes employees feel insecure because of the unavailability of a manager and the lack of praise and recognition. Using a transactional approach, for example, a manager would explain to employees what is required of them and what compensation they would receive if they fulfill these requirements. A transformational leader or manager, in contrast, would appeal to the interests of employees by (1) inspiring them, (2) providing individualized consideration and meeting their emotional needs and by (3) providing opportunities for intellectual stimulation, or all three (Bass, 1999). When the nurse manager employs transformational leadership characteristics, the nurse manager sets clear expectations for staff nurse performance and motivates the staff nurse to perform well beyond set expectations. According to Bass 1999, transactional leadership is likely to become a "prescription for mediocrity", whereas transformational leadership stimulates superior performance.

This study focused on the leadership style of the nursing leader, the nurse manager in particular. The nurse manager is the member of the nursing leadership team that is directly linked to the staff nurse and the patient care environment. In healthcare organizations, the decision for large scale change is generally made at the executive level. This change is then communicated and translated for implementation at the bedside. The

nurse manager is the vehicle of communication for change and implementation of change at the bedside. Leadership style of the nurse manager will determine success or failure of change at the bedside. The transformational nurse manager serves as an advocate and mentor for staff nurses; hence, the importance of these two roles that place the nurse manager in a primary position to impact and lead change.

Problem of Study/Statement of Purpose

Creating work environments for nurses that are most conducive to patient safety will require fundamental changes throughout many health care organizations (HCOs)—in the ways work is designed and personnel are deployed, and how the very culture of the organization understands and acts on the science of safety. These changes require leadership capable of transforming not just a physical environment, but also the beliefs and practices of nurses and other health care workers providing care in that environment and those in the HCO who establish the policies and practices that shape the environment—the individuals who constitute the management of the organization (IOM, 2001). The role of the nurse manager is at the forefront of supporting and leading nurses in efforts of practice change and development of policies and procedures that guide nursing practice.

Leadership is a dynamic process in which a variety of personal behaviors and strategies are used and management is described as working with and through individuals to accomplish organizational goals (Outhwaite, 2003). Healthcare organizations set goals and priorities that focus on their largest customer, the patient (IOM, 2001). By far, the

ultimate goal for any healthcare organization is to provide safe quality care for all patients. The role of the nurse manager is crucial in achieving the goals and strategies of the healthcare organization. The nurse manager is poised to mentor and coach the staff nurse to create a culture where patient advocacy and quality care are the main priority. It should be noted that role of the nurse manager is one that is overarching in most initiatives that impact patient care and is also inclusive of accountability of the success or lack of success for initiatives and unit based outcomes. Practicing transformational leadership style is key for nurse managers to be successful in the roles listed above. The importance of this study was to determine if nurse managers can learn transformational leadership behaviors via an educational program.

Rationale for the Study

Nurse managers have come to be regarded as one of the most important assets of a hospital (Aroian et al., 1997). Their managerial responsibilities have increased tremendously. They are asked to do more with less on a daily basis but they have not received education in management principles and leadership behaviors that support getting things done through motivating people to perform beyond the barrier of limited resources (Noyes, 2002). It is important that nurse managers have educational preparation for leadership to prepare them to have a greater understanding of how to lead others when events and circumstances occur and change the work environment of healthcare (Mahoney, 2001). One aspect of transformational leadership style is motivating followers to perform to their full potential by influencing change and

providing a sense of direction while challenging the status quo. Leadership is not merely a series of skills or task; rather, it is an attitude that informs behavior (Cook, 2001). This study examined the effectiveness of an educational program for developing transformational leadership style by teaching behaviors and attributes that support transformational leadership.

Healthcare leaders must step forward and show strength through leadership style and commitment to quality by using the influence they have on followers and their well-being. The impact of nurse manager behaviors and leadership style may impact the care environment and must be taken into account when examining how bedside nurses perceive their work environment and care for patients. Transformational leaders are active listeners that empower nurses to believe in their own ability to create and adapt change (Hyett, 2003). When nurses are empowered by their manager, respect and trust exist between the leader and follower and this leads to retention. Using monthly and yearly labor cost and productivity reports, the Memorial Hermann Health System found that the average cost to hire and train a new nurse is $83,000. Transformational nurse managers will minimize this cost and maximize retention of employees by empowering and motivating nurses to actively participate in unit level changes that improve how patient care is delivered.

The 2003 Institute of Medicine (IOM) report on patient safety and quality healthcare calls for transformational leadership in healthcare organizations to change systems and processes underlining quality (Gautam, 2005). The basis for this study was

an attempt to close the gap in research on leadership style and behaviors of nurse managers and on educating nurse managers in transformational leadership style, the best leadership style to use when faced with transitions in healthcare (Walshe & Rundall, 2001).

Bass (1999) asserts that managers can learn transformational leadership behaviors through individual guidance and workshops that emphasize identification of exemplary role models, self-evaluation, role play and creation of scenarios that utilize the transformational approach. The intervention for this study is an educational program that is used to develop transformational leadership practices that are fundamental to transforming nurses' work settings into healthy work environments. The courses (listed in Appendix D) depict leadership practices that have been shown to result in positive outcomes for patients, nurses and organizations (Ward, 2002).

Figure 1 diagrams the influential relationship of nurse manager leadership style on staff nurse perception of their work environment and staff nurse focus on patient advocacy and improvements in patient care which leads to positive unit outcomes. When nurse managers demonstrate transformational leadership behaviors and attributes (transformational leadership style) such as: intellectual stimulation, individualized consideration and contingent rewards, staff nurses focus on patient advocacy and improvements in patient care. These behaviors and attributes also lead to positive staff nurse perception of their work environment. As a result, positive unit outcomes are

achieved that result in nurses feeling empowered to make suggestions to improve nursing practice at the unit level (Porter-O'Grady, 2003).

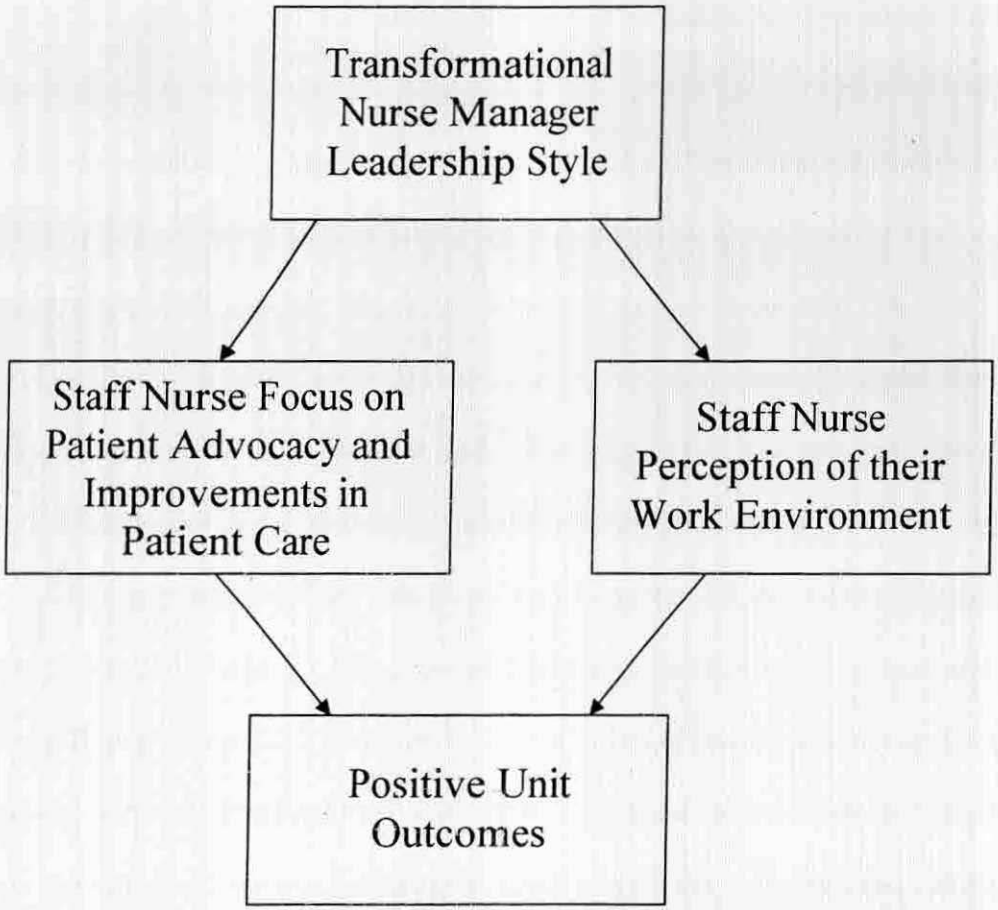


Figure 1. The relationship between transformational nurse manager leadership style, staff nurse focus on patient advocacy and improvements patient care, staff nurse perception of their work environment and positive unit outcomes

Theoretical Framework

The theoretical approach for this study on leadership styles was based on Bass' Model of Transformational Leadership. Bass (1985) explains transformational leadership as the motivation of followers to do more than the expected by (a) raising followers' levels of consciousness about the importance and value of specified and idealized goals, (b) getting followers to transcend their own self-interest for the sake of the team or organization and (c) moving followers to address higher-level needs (p. 20). The Transformational Leadership Model was utilized to link nurse manager leadership style to the effectiveness of an educational leadership program that was previously developed to teach characteristics and attributes of transformational leadership.

The components of Bass' Model of Transformational Leadership are: idealized influence, idealized behavior, inspirational motivation, intellectual stimulation and individualized consideration. Idealized influence describes leaders who act as strong role models for follower. Idealized behaviors are realized when the leader shares risks with followers and is consistent in conduct with underlying ethics, principles and values. Inspirational motivation describes leaders who communicate high expectations to followers while inspiring them through motivation. Intellectual stimulation includes leadership that stimulates followers to be creative and innovative while challenging their own beliefs and values as well as those of the leader and the organization. Individualized consideration is represented by leaders who provide a supportive climate where the leader listens carefully to the individual needs of followers (Northouse, 2004).

Hypotheses

The hypotheses of this study assert that:

1. Nurse managers who work in an acute care hospital setting that complete a leadership education program will demonstrate more transformational leadership characteristics as compared to nurse leaders who do not attend a leadership education program.

2. Nurse managers who complete a leadership education program will demonstrate more transformational leadership characteristics as compared to nurse leaders who do not attend a leadership education program 30 days after completion of the program.

Definition of Terms

The following definition of terms apply to this study:

Leadership: Harold Koontz (1990) defines leadership as influence, that is, the art or process of influencing people so that they will strive willingly and enthusiastically toward the achievement of group goals.

Nurse Manager: the American Organization of Nurse Executives (AONE) defines the nurse as a registered nurse (RN) who had 24-hour accountability and responsibility for the delivery of nursing care on a nursing unit or area.

Leadership Style: ascribed traits, behaviors and skills used to lead others. Operationally, leadership style can be identified as: participative, democratic, autocratic, situational, laissez-faire, transformational and transactional (Wren, 1994).

Leadership Attributes: characteristics or quality of leadership. Courage, good communication skills, humility and integrity are examples of attributes applied by great leaders (Yukl and Lepsinger, 2007).

Transformational Leadership: the conceptual definition of transformational leadership is, "A process of influencing in which leaders change their associate's awareness of what is important and move them to see themselves and the opportunities and challenges of their environment in a different way" (Sellgren, Ekvall & Tomson, 2006). The operational definition of transformational leadership may be measured by the following attributes, "Idealized influence, inspirational motivation, intellectual stimulation and individualized consideration. Followers report admiration, respect, trust, identification with the leader and want to emulate the leader" (Avolio and Bass, 2004).

Transactional Leadership: the conceptual definition of transactional leadership as defined by Sellgren, et al., 2006 is giving or withholding rewards and recognition such as praise, merit increases, promotions and bonuses to elicit employee performance based on goals and direction set by the leader (p. 350). Avolio and Bass (2004) provides an operational definition of transactional leadership as leadership that may be measured by the following attributes: Active and passive management-by exception and contingent reward, while followers demonstrate lower levels of performance (task-oriented) or non-significant change.

Table 1

Nines Scales of Transformational and Transactional Leadership Styles

Definitions of Bass and Avolio's Nine Leadership Scales		
Leadership Style	Scale	Definition
Transformational leadership	Idealized Influence Attributed	These leaders have socialized charisma. Followers admire, respect, and trust these leaders as a role model and want to emulate leaders.
	Idealized Influence Behaviors	These leaders behave in ways that their actions are centered on values, beliefs, and a sense of mission. They are consistent rather than arbitrary.
	Inspirational Motivation	These leaders motivate and inspire followers by providing meaning and challenge to the work environment. Team spirit is aroused. Enthusiasm and optimism are displayed.
	Intellectual Stimulation	These leaders stimulate followers' efforts to be innovative and creative by questioning assumptions, reframing problems, and approaching old situations in new ways.
	Individualized Consideration	These leaders pay special attention to the needs of each individual follower for achievement and growth. Followers are developed to successively higher levels of potential.

Table 1 (cont)

Nines Scales of Transformational and Transactional Leadership Styles

Definitions of Bass and Avolio's Nine Leadership Scales		
Leadership Style	Scale	Definition
Transactional Leadership	Contingent Reward	These leaders are found to be reasonably effective, although not as much as the five "I's" (see transformational leadership scale above) in motivating others to achieve higher levels of performance.
	Management by exception Active	Although these leaders are found to be less effective than Contingent Reward leaders, this style is still required in certain situations. These leaders actively monitor deviances from standards, mistakes, and errors in the followers' assignments and to take corrective action as necessary.
	Management by exception Passive	These leaders wait passively for deviances, mistakes, and errors to occur, and then take corrective action.
Non-leadership	Laissez-faire	These leaders represent avoidance or absence of leadership. They avoid making decisions, abandon responsibility, and do not use authority. This is considered the most inactive, as well as ineffective approach to leadership by almost all research on leadership style.

Source: Adapted form Avolio & Bass (2002) and Antonakis, Avolio, Sivasubramaniam (2003)

Limitations

This study was based on data from one hospital system. Including multiple hospital system may have shown various degrees of transformational leadership based on the organization's culture. Also, the data for this study was based on a 180 degree feedback result and could have also included a 360 degree feedback of the results. A 180 feedback was chosen over a 360 feedback to minimize the risk of not having access to the same subordinates after two months. Additionally, the manual process used to calculate scores is a limitation for this study. To decrease the risk of error in scoring, all surveys were scored twice on different dates.

Summary

Expectations of the nurse manager have rapidly changed over the past decade from managing task and people to the current state of managing and leading multiple priorities such as financial resources, human capital, the change process and supporting a healthy work environment. Each contributes to the organization's financial success and is equally important when considering how patient care is delivered. Successful management and leadership of the above are dependent on the nurse manager's ability to balance leadership attributes and behaviors that transform the current state to the desired state without causing chaos and confusion amongst followers. This study was in grounded in the principles of transformational leadership style and how managers can learn the characteristics and attributes for application in today's complex work environment.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Nursing, healthcare, and governmental literature are replete with research on various concepts and operational influences of nursing leadership and its impact on nurses. Debates in the literature are long lived and continue over the best method of leading nurses to drive positive returns on: recruitment, retention, nurse satisfaction, safe patient care, quality patient care and nurse sensitive outcomes for patients. However, the common allegiance of debaters and other entities of healthcare policy makers is the call for transformation in healthcare leadership to provide an overarching effect on better healthcare for all.

The purpose of this literature review was to examine selected articles on the history of nursing leadership, transformational and transactional leadership style and relevant articles that explore the relationship between nurse manager leadership style and the impact of nurse manager leadership style on the work environment of nurses. Attributes and behaviors of the nurse manager contribute to quality patient care and may impact patient outcomes through positive or negative influences on staff nurse performance; therefore, an overview of related articles is included in this review. Since transformational and transactional leadership styles were the two major concepts of interest in this study, a comprehensive discussion of the Bass and Avolio Model of

Transformational Leadership Style will be included. Also, the Bass and Avolio Model was used as the theoretical framework of this study.

This literature review chapter began with the history of nursing leadership and progress to leadership style, behaviors and attributes that constitute supportive leadership. The chapter proceeded to a discussion of outcomes and quality of care, which are linked to effective leadership. The chapter concludes with the current state of nursing leadership and proposes where nursing leadership will be when transformational leadership style is taught and modeled through identified attributes and behaviors.

Nursing Leadership

Various qualities, attributes, behaviors and even skill level define nursing leadership. The mid to late 20th century began the era of healthcare reform, which in turn redefined the role of leadership in healthcare. The works of House, Bass and Hersey and Blanchard are all considered classics on the subject of leadership. House (1976) defined a leader as someone using interpersonal skills to influence others to accomplish a specific goal. Hersey and Blanchard (1988) described leadership as the process of influencing the activities of an individual or a group in efforts toward goal achievement in a given situation. Bass (1985) further clarified the difference in leadership and management. Leadership is a dynamic process in which a variety of personal behaviors and strategies are used and management is described as working with and through individuals to accomplish organizational goals. For the purpose of this study, the term nursing leadership will focused on the level of the nurse manager as the nurse leader.

Ohman's 1999 study was the first of it's kind; it was the first study to examine the affect of managed care on the role of nursing leaders. Ohman (1999) identified cost and quality healthcare as the driving forces of managed care. Ohman highlighted the role of nurse managers on influencing staff to achieve goals related to reducing healthcare cost. The change in the role of the nurse manager included, managing and monitoring daily operations and motivating staff members to perform beyond expectations.

Perra (2000) recognized the contributions of Florence Nightingale as an early influence on nursing leadership practice as she role-modeled innovation, using intuition, experience and practice knowledge on the battlefields of Crimea. Perra proposed that the leadership style of nurse leaders contributes to the success of their organization. However, Perra argued, in order for nurse leaders to be successful, their leadership practices must exhibit the following characteristics: self-knowledge, respect for self and others, trust, integrity, shared vision, participation, learning, communication and change facilitation. The premise for the above stated characteristics is grounded in the Integrated Leadership Practice Model (ILPM), which defined fundamental qualities of leadership that produce positive and desirable outcomes of practice. Perra reported that nurse leaders will be effective in creating a workforce that provides quality care in a creative cost-effective manner when the ILPM is used along with a leadership style to which professional nurses can relate. Perra's assessment of leadership practices support a leadership style that is noteworthy for the early 21st century since the national government and insurance companies have begun to demand more from healthcare

institutions in their role and obligation to reform healthcare so that it is provided with equity, affordable, and accessible to all.

Since the nurse manager was the identified nurse leader for this study, an overview of characteristics for an effective healthcare manager and preferred and perceived leadership style is necessary. Johnson (2005) studied nurse manager leadership effectiveness by means of an assessment and case study of seven managers in various healthcare facilities including a chiropractic center, two community health clinics, a health employment office, a rehab clinic, a mental health clinic and a private hospital. The managers were selected because of their reputation as "good managers" and because of the viability of their healthcare organization. Managers in the study performed a self-assessment of their managerial skills using the Scale of Transformational Leadership a 24-item Management Style Survey developed by Janda, 1999. The survey measured six elements of management: attention, meaning, trust, self, risk and feelings. Also, a health care management intern was paired with each manager to observe the manager and support or refute the manager's self-assessment. Each intern did in fact support the manager's self-assessment rating. Findings from this study revealed the order of importance of managerial skills from highest to lowest as: management of trust, management of attention, management of self, management of feeling, management of meaning and management of risk (Johnson, 2005). This introspective case study provided valuable information on the validity of assessing managerial skills for hiring nurse

leaders and promoting nurses to the ranks of leadership based on an assessment of management skills rather than nursing skills.

Measuring Leadership Style

Research on leadership style has primarily been based on a theory that there are specific behaviors, which together build leadership style dimensions (Ekvall & Arvonen, 1994). The review of literature revealed that nursing leadership style is measured by instruments that register the leaders' and followers' perceptions of behaviors and characteristics. Huber, Mass, McCloskey, Scherb, Goode and Watson (2000) argued that of the eighteen instruments available to measure nursing leadership behaviors, the Leadership Practice Inventory (LPI) and the Multifactor Leadership Questionnaire (MLQ) have been found to be used most often because they are both user friendly and self explanatory.

Lowe and Kroeck (1996) conducted the first meta-analysis of literature on transformational leadership using the MLQ to integrate diverse findings, to compute an average effect for different leadership scales and probe for certain moderators of the leadership style-effectiveness relationship. The purpose of the study was (a) to examine the frequency of transformational leadership style use in private versus public organizations, (b) to analyze the relationship between effectiveness of transformational and transactional leadership behaviors in private versus public organizations, (c) to determine if transformational leadership is more prevalent at upper levels of management

than at lower levels, and (d) to evaluate the relationship between transformational and transactional leadership effectiveness by the level of the leader within the organization.

The 39 studies included in the meta-analysis met all of the following criteria: (a) used the MLQ to measure the subordinate's perception of leadership style, (b) leader effectiveness must have been reported in the study, (c) the sample size must have been reported, (d) a Pearson correlation coefficient or a correlation conversion test statistic between leadership style and effectiveness must have been reported, and (e) the reported leader rating must have been performed by a subordinate of the leader. The results of the meta-analysis revealed that transformational leadership behaviors were more commonly observed in public organizations than in private organizations. Perhaps the most relevant result of this meta-analysis is the identification of the level of the organization where transformational leadership perceived to be most effective. The meta-analysis did not support measurement of leadership effectiveness using the MLQ. Overall findings of this meta-analysis is that the MLQ may be used to identify leadership style at any level of leadership but may not be credible for determining effectiveness of leadership style at higher leadership levels in an organization.

Characteristics, Behaviors and Skills

James M. Burns coined the term "transformational leadership" in his classic 1978 book, Leadership. Burns (1978) described transformational leadership as a process that motivates subordinates by appealing to high ideals and moral values by combining employee relation-oriented and change-oriented leadership style. Bass (1985) developed

an instrument (the MLQ) to measure transformational and transactional leadership behavior. The instrument has also been used to identify the correlation of leadership style to work unit effectiveness and satisfaction. The MLQ is composed of five subscales. Three of the five subscales measure transformational leadership characteristics (charisma, individualized consideration and intellectual stimulation) and two of the five subscales measure transactional leadership characteristics (contingent rewards and management-by exception).

Dixon (1999) presented a case example to demonstrate leadership behaviors and characteristics necessary for transformational leaders to balance the hard issues of revenues and profit with the soft issues of human relations (internal and external customers) while maintaining stability in the unstable environment of 21st century leadership. Essential elements of transformational leadership identified in this case example include culture building which was achieved through the leaders ability to help all organizational players commit to what the organization stands for and how work is performed. The case example explained how meaningful clear, consistent communication in multiple forms and treating people with dignity and respect, were also utilized to build trust. Systems, processes, structures and strategies were developed and maintained to support the vision and basic operations of the healthcare organization. This case example highlighted important behaviors and characteristics that nurse leaders must possess for balancing priorities and demands in a turbulent environment to create a healthy

healthcare organization that is able to the provide the quality of care patients, families and communities deserve.

Al-Mailam (2004) conducted a cross-sectional study of public and private hospitals in Kuwait to examine the impact of transformational and transactional leadership style of department heads (DH) and hospital directors (HD) on the following performance measures: quality of care, employee satisfaction and employee perception of leadership efficacy. Results of this study showed that employees who worked for transformational leaders were more likely to view their leader more effective than employees who worked for transactional leaders. The analysis of variance (a significance of 0.000) revealed a significant relationship between style of leadership and employee perception of its efficacy for both DH and HD (*F* values of 32.41 and 48.43). The significance of this study demonstrates the value and significance employees place on transformational leadership style as an indicator for quality and leadership value. This study also solidifies the need to recruit and develop leaders who possess or have the ability to learn to become transformational.

Murphy (2005) presented a cascading chain reaction of transformational leadership for creating new innovative organizational paradigms to juggle challenges of the system, staff and patient care. Murphy suggested the following behavior-skill development for healthcare managers to develop and foster transformational leadership qualities. Murphy believes through professional development and intellectual stimulation, nurse managers are better prepared to transcend staff members and patients. Murphy also

endorses empowerment of nurses by nurse managers to improve staff nurse decision-making skills, to increase accountability and to foster loyalty and competency. Management by attention and management of meaning are behaviors nurse managers should adopt to create an environment of creativity and collaboration among followers, which could lead to improved patient care.

Leach (2005) investigated the relationship between leadership style of nurse executives (NE) and organizational commitment among nurses in acute care hospitals. The Transformational Leadership Theory and Etzioni's Organizational Theory were used as the theoretical constructs for this study. Leach argued that NE leadership effects the RN organizational commitment and involvement in the success or the organization or a lack of commitment from the RN to the organization which is demonstrated by low morale, high turnover and a lack of experienced RNs. Due to the cost crisis and financial reform initiatives in the American healthcare system today which has dramatically changed patient care services in acute care hospitals, effective leaders maximize the potential and longevity of RNs to cultivate their involvement and commitment to quality patient care. This study showed an inverse relationship between nurse executive's transformational and transactional leadership style and the nurse manager's organizational commitment, which ultimately impacts the care provide by RNs.

Similar to Leach, McGuire & Kennerly (2006) studied the link between the nurse manager's use of transformational and transactional leadership behaviors and the development of organizational commitment of RNs, which may impact patient outcomes.

A descriptive correlation study was performed to examine the relationship between nurse manager leadership style and staff nurse organizational commitment. Also, perceptions of leadership characteristics by nurse managers and staff nurses were explored. The results of this study revealed that nurse managers ranked their transformational leadership scores (ranged from 3.89 to 4.28) higher than their RN subordinates ranked them. On the contrary, staff nurses ranked their nurse manager as more transactional with scores ranging from 2.14 to 3.73. These findings suggest that nurse managers may not fully understand the concept of transformational leadership or may not work in an organization that allows the manager to exercise transformational behaviors due in part to bureaucracy and maybe even a system that evaluates performance based on transactional measures (productivity, cost management, policy compliance and recognition).

McGuire & Kennerly (2006) recommend that nurse manager's performance standards and education be revised to focus more transformational processes than transactional processes to encourage organizational commitment amongst RNs. The transformational processes discussed by McGuire and Kennerly (2006) include: establishing clear expectations, creating a shared vision for the nursing unit, inspiring and motivating subordinates to perform beyond basic expectations, create a sense of team spirit across the nursing unit, effective listening skills, coaching and mentoring. These processes can bring a competitive advantage to recruitment and retention of a committed workforce and foster a healthy work environment for nurses.

Laschinger, Wong, McMahon & Kaufmann (1999) suggested that patient safety and quality are improved when nurse leaders create an environment that nurtures a culture where nurses are empowered. Clegg (2000) identifies a correlation in healthcare amongst quality of care, staff morale and effective nursing leadership. Clegg believes that proactive leadership can foster high quality and individualized healthcare. The 2001 IOM report carried on the 1999 IOM charge for nurse leaders to transform the healthcare system by narrowing the quality chasm through medical science and technology to bring safe, effective, patient-centered, timely, efficient and equitable patient services as a standard for all hospitals in America in every community.

Ganz, Sorenson and Howard (2003) described quality as maintaining safety in the patient care environment through vigilance in monitoring and focusing on clinical excellence from the entire multidisciplinary team that results in effective, measurable, efficient and synergistic outcomes for the patient, caregiver, institution and community. Ganz et al. recognized that nurse leaders are faced with great opportunities to make promising strides to the definition of quality of care by managing ambiguity and mobilizing actions centered on performance improvements and quality standards set by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

Nurse leaders play a key role in creating an environment and culture of caring and quality patient care (Boykin & Schoenhofer, 2001; Warden 2002; Deutschendorf, 2003 and Pintar, Capuano, & Rosser, 2007). Aarons (2006) argues that leadership influences

adaptation of innovations such as evidence based practice, which leads to quality care. Nurse administrators and managers leadership style can have positive or negative consequences for patient safety by its influence, support and/or lack of support for nursing staffing levels and professional nursing practice behaviors (Fralic, 1999; Firth-Cozens & Mowbray, 2001; Aiken, 2005 and Manojlovich, 2005).

Lageson (2004) descriptive cross-sectional study examined the relationship between quality focus of the first line nurse manager and patient satisfaction, job satisfaction of nursing personnel, unit effectiveness, staff perception of quality and nursing turnover. Donabedian's description of quality as structure, process and outcomes was used as the theoretical framework for this study. Using Pearson's correlation coefficients, significant findings from this study were as follows: 21.8% of the variation in job satisfaction was accounted for by nurse manager focus on quality and quality focus of the nurse manager was not a significant predictor of (a) turnover rates of nurses, (b) patient satisfaction, (c) unit effectiveness and (d) staff perceptions of quality. The value of this study is that it identified the importance of the nurse manager's responsibility to support provisions for ensuring quality patient care services are delivered by the healthcare team.

New Leadership in Healthcare

Aiken, Clarke & Sloane (2000) and Norrish & Rundall (2001) all agree that the call for new leadership in healthcare has been commanded by some (healthcare consumers, insurance companies and government) and the result of other (restructuring,

nursing shortage and IOM and restructuring) initiatives that have changed the landscape of healthcare in America. The foundational discussions of Taccetta-Chapnick (1996) explains the effects of restructuring health care systems and the role of transformational leaders in the change process and conflict resolution that are caused by competition and conflicts that may arise within the healthcare system as a result. Taccetta-Chapnick further explains that the rapid change era and competitive environment in healthcare is a result of knowledgeable consumers searching for healthcare organizations that provide the highest quality of care at the lowest possible cost. Taccetta-Chapnick believes that nurse leaders must utilize transformational leadership skills to cope with the conflict and view the change as positive. Taccetta-Chapnick also believes organizations must examine ways to increase client satisfaction to win the competitive advantage and maintain future referrals and hospital revenues.

Aiken et al. reviewed the common elements of restructuring and re-engineering, and historical perspectives on nurse organization in their study on the impact of hospital restructuring on adverse patient outcomes. Hospital restructuring was represented by: mergers, closings, conversions in level of care, and a change in ownership. Common elements of re-engineering were represented by process redesign, changes in work assignments, modifications in clinical staffing and skill mix and reductions in management positions to achieve increased productivity and efficiency to lower cost. This study concludes that historical perspectives on nurse organizations reveal that very sick patients are being subjected to unknown consequences of organizational reform.

Moreover, during periods of staff reductions in hospitals, the number of RNs maybe reduced coupled with reductions in ratios of nurses to patients with correlated variations in patient outcomes. Transformational leaders must identify goals for restructuring and manage the work environment of nurses during the change to optimize patient outcomes.

Dunham-Taylor (2000) recognize the challenges of nurse leaders with the expectations to achieve higher performances in an environment that is increasingly competitive and hectic with day-to-day crisis management, meetings, competing priorities from internal and external customers and changing programs/services. Within this environment, positive and negative influences on organizational performance reside in the leadership style of nurse leaders. Dunham-Taylor asserts that, as the organization becomes more participative, transformational leadership effectiveness increases. Also, as the size of the organization increases, the organizational climate enhances transformational qualities, especially when the nurse leader possessed a higher academic degree (Master's or higher). Participative organizations encourage higher levels of staff involvement in decision-making and managing productivity and outcomes. Employees in participative organizations are more like to feel comfortable interacting with people at high levels within an organization to share ideas and address issues. Fostering work cultures in healthcare where the environment is categorized as participative calls for transformational leadership.

Building trust and earning the confidence of the nursing staff can be instrumental in creating a work environment that supports change to promote positive clinical

outcomes. Newhouse and Mills (2002) examined the level of system integration to determine if a relationship exists between the level of nursing professional development (nursing leadership, care delivery systems, professional growth and collaborative practice) and system integration. The Contingency Theory was used as the theoretical framework for this study to link the environmental context with the organizational structure and the effectiveness of outcomes. Northouse defines the Contingency Theory as "a midrange concept that recognized the complexity involved in managing modern organizations but uses patterns of relationships and/or configurations of subsystems in order to facilitate improved care" (p. 109). The Transformational Model for Professional Practice in Health Care Organizations (TMPP) measured the level of nursing organization to system integration and the Perceived Systemness and Integration Measure (PSIM) was used to determine the level of integration within the system or network.

The relevance of Newhouse and Mills' study is its focus on extraneous variables that affect the work nurses must perform daily in a changing health care system. In addition, nurse administrators must understand the impact of system and network formation on their organization, and the need to communicate the impact of these efforts and changes to the nurse. Administrators and clinical nurses share the responsibility to create mechanisms to promote continuity of care across the organization and system as part of professional practice. This research supports that leadership in professional practice is positively related to establishing a system culture, strategic planning, and resource allocation from the perspective of the nurse administrator. In a system culture

that supports interpersonal relationships and employee support, as well as provides system equity in resource allocation, a professional practice environment will be enhanced. Nurse administrators, who were able to drive the creation of this atmosphere also fostered excellence in the care delivered to patients, and enhance the trust of their nursing staff.

The 2003 Institute of Medicine's (IOM) report on keeping the patient safe, identified problems within healthcare organizations and recommended creating work environments for nurse that facilitate patient safety. The IOM report further explains the importance of required basic changes throughout healthcare organizations to consider revamping how work is designed, personnel are assigned to provide care and how organizations create a culture of safety through identification and evidence based action. The IOM recognized that these changes would constitute healthcare organizations employing leadership capable of transforming the physical environment, the beliefs and practices of all healthcare workers and those who establish policies and procedures for providing care and keeping the patient safe.

Conclusion

Common skills used by both manager and leaders are: communicating, motivating, initiating, facilitating and integrating (Bass, 1985). The American Organization of Nurse Executives (AONE) 2000 hailed that nurse leaders are critical to the effective and efficient delivery of safe patient care within healthcare organizations across the continuum of care. However, nurse leaders often learn and teach leadership

skills based on rituals, isolated and unsystematic management experiences, and opinions and traditions handed down from times past (Walshe & Rundall, 2001). Walshe & Rundall (2001) concluded that nurse managers must move away from learning skills that solve daily problems and seek out opportunities to learn leadership skills and how to focus on the big picture while looking for opportunities to motivate their followers to always improve. Walshe & Rundall (2001) believe that teaching nurse managers to be transformational would reduce the amount of bureaucratic activities a nurse manager performs that will in turn increase engagement of followers and raise them to a higher level of motivation and inspiration that is needed to get organization through the rough times. According to Upenicks (2003), the primary focus of transformational leadership is change, which may conflict with the type of performance management necessary for affordable healthcare. Force (2005) supports providing leadership education that promotes visibility and responsiveness to staff.

Review of the literature on nursing management leadership styles revealed that transformational leadership style in healthcare leaders promotes positive outcomes for patients and nursing staff. The literature review also uncovers a relevant relationship among transformational leadership style and change management, which is inevitable in the current healthcare environment.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

Methods

A two-group randomized post test design was used to test the hypotheses of this study. An investigator developed demographic instrument was utilized to obtain the following data: age, gender, length of time as a nurse leader and number of direct reports (see Appendix B). The MLQ (see Appendices E & F) was used to measure leadership style, the dependent variable of this study. The MLQ was developed in 1985 by Bass to measure transformational and transactional leadership behavior. Over the past two decades, the instrument has been revised several times to address a multitude of criticism of its components and scales. The end result of revisions is the MLQ 5X-Short, a 45-item questionnaire that used a 5-point Likert scale. The instrument is also effective to identify the correlation of leadership style to work unit effectiveness and satisfaction.

For the purpose of this study, all 45 items of the MLQ 5X-Short were used to identify leadership style. The scale used to evaluate the MLQ factors are presented on a scale from zero to four: 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often and 4 = frequently, if not always (Avolio and Bass, 2004). Scoring of the MLQ was accomplished by averaging the scores of each item on the scale and dividing by the number of items in the scale (See Appendix G).

Table 2 provides sample items that correspond to each leadership scale and factor. Advantages of using the MLQ to assess leadership style are: it offers a broader range of leadership behaviors while also differentiating effective from ineffective leaders based on the leaders transformational attributes and characteristics, it focuses on individual behaviors observed by associates and followers and it assesses leadership behaviors that motivate associates to achieve agreed upon and expected levels of performance (Avolio and Bass, 2004).

Table 2

Descriptions of MLQ Questions. Component of Multifactor Leadership Questionnaire Form 5X-Short

Leadership Scales	Leadership factors	Sample Questions
		The person I am rating...
Transformational Leadership	Idealized influence (attributes)	Goes beyond self-interest for the good of the group. Displays a sense of power and confidence
	Idealized influence (behavior)	Considers the moral and ethical consequences of decisions. Emphasizes the importance of having a collective sense of mission
	Inspirational motivation	Articulates a compelling vision of the future Expresses confidence that goals will be achieved
	Intellectual stimulation	Re-examines critical assumptions to question whether they are appropriate. Suggest new ways of looking at how to complete assignments
	Individualized consideration	Considers individuals as having different needs, abilities, and aspirations from others. Helps others to develop their strengths
	Contingent Rewards	Discusses in specific terms who is responsible for achieving performance targets. Makes clear what one can expect to receive when performance goals are achieved
	Management by exception (active)	Focuses attention on irregularities, mistakes, exceptions, and deviations from standards Concentrates full attention on dealing with mistakes, complaints, and failures.
	Management by exception (passive)	Shows that he/she is a firm believer in... If it isn't broke, don't fix it. Demonstrates that problems must become chronic before he/she takes action
	Laissez-faire leadership	Avoids getting involved when important issues arise. Delays responding to urgent questions

Source: Adapted from Avolio & Bass (2002) and Antonakis, Sivasubranabuan (2003)

Instrument Reliability and Validity

The MLQ has been tested for reliability and validity in more than ninety six studies over the past twenty years. The foundational work of Bass and Yammarino's 1991 study calculated Pearson's *r* for each of the five subscales that measured transformational and transactional leadership. Three of the five subscales had marginal to good correlations greater than .845 and two were unacceptable with correlations of .72 and .47. Cronbach's alpha was also computed for the five subscales; the results were as follows: Inspirational motivation .92, individualized consideration .88, intellectual stimulation .86 and contingent reward .83, which indicates moderate to high correlation. However, management by exception had a Cronbach's alpha of .65, which demonstrates low reliability. Discriminate validity for the five subscales had correlation averages less than .80, which indicates the constructs are independent of one another (Bass and Yammarino, 1991).

The same study also conducted exploratory analysis of the nine factors of the MLQ, which supports the hierarchical structure of the instrument. To test the psychometric properties of the measurement instrument, confirmatory factor analysis was completed. The goodness of fit of the measurement instrument result was .91and the chi-square goodness of index showed a nonsignificant *p* value, which indicates a reasonable level of fit (Bass and Yammarino, 1991).

Setting

The setting for this study was the Memorial Hermann Health System (MHHS) in Houston Texas. MHHS is a System of 10 hospital facilities and is the largest healthcare provider in Houston and the surrounding counties: Memorial Hermann Hospital in the Texas Medical Center (MHH TMC), Children's Memorial Hermann Hospital (CMHH), Memorial Hermann Katy, Memorial Hermann Sugarland, Memorial Hermann Woodlands, Memorial Hermann Northwest, Memorial Hermann Northeast, Memorial Hermann Southwest, Memorial Hermann Southeast, Memorial Hermann-The Institute for Rehabilitation and Research (TIRR) and Memorial Hermann Memorial City. Three of the ten facilities, MHH TMC, CMHH and TIRR are affiliated with an academic medical institution. MHH TMC is the largest facility with a 1000-bed capacity, Memorial Hermann Southwest in the second largest facility with a 640-bed capacity and the remaining facilities ranges in size from a capacity of 95- 380 beds. Additionally, the American Nurses Credentialing Center (ANCC) has designated Memorial Hermann Memorial City as a Magnet facility and MHH TMC, CMHH, Memorial Hermann Woodlands and Memorial Hermann Northwest as Nurse Friendly facilities with Pathway to Excellence designations.

Participants

The sample for this study consisted of nurse managers of the MHHS. Inclusion criteria for this study were as follows: (a) nurse managers who work in the MHHS and have a transactional score of 2.0 or greater and a transformational score of less than 3.5

on the Multifactor Leadership Questionnaire (MLQ). Nurse managers with at least 2 years recent nursing leadership experience. The rationale for the inclusion criteria is that the MLQ measures leadership attributes exhibited within the most recent 12 months. The rationale here is that the MLQ consist of a 360 and 180-degree feedback component. For the purpose of this study, the 180 degree feedback was used. Participants for this study met all inclusion criteria. Exclusion criteria for this study was: Nursing managers who work in the MHHS and have transformational leadership score of 3.5 or greater on the MLQ and nursing leaders outside of the MHHS. Rationale: The MLQ license was secured for use within the MHHS only.

Participants were screened for inclusion and exclusion in four stages. The first stage was recruitment. An electronic participant invitation letter was sent to nurse managers in the Memorial Hermann Health System. When participants responded to the participant invitation indicating their interest, step two was initiated. Step two is completion of an electronic demographic survey to evaluate eligibility for inclusion criteria. Step three of screening was signing the consent form. The final step in screening was completion of the MLQ to determine the participant's leadership style.

A randomized sample of 50 transactional nurse managers from the MHHS participated in the study. Probability sampling was used as a sampling technique to ensure that all transactional nurse managers were given the same opportunity to experience the intervention. The sample size calculation was based on an effect size of .82 using a power of .80 and alpha of .05 using the following formula:

M_1 - M_2 / conservative standard deviation which yielded a sample size of 50. To reinforce learning and enhance transformational behaviors, booster interventions of role-playing and scenario discussions to practice transformational leadership attributes was utilized. Also, coaching and mentoring sessions with nurse managers in the intervention group were held every other week on the manager's unit.

Threats to internal validity exist with this study due to a 9% turnover rate of nurse manager within the first 2 years in the MHHS. To combat this threat, attrition was monitored closely on a weekly basis to ensure that the calculated effect size was maintained and a standby pool of ten nurse managers that met all inclusion criteria was developed for substitution of fallouts. Creative recruitment and retentions strategies were used to elicit and maintain a viable sample size. Working with the MHHS Organizational Development department, permission was requested and granted to allow use of the 2-month leadership education program as a means of satisfying a portion of the mandatory hours for leadership development that is required yearly for all leaders in the MHHS organization. This was used as an incentive for managers to complete the entire leadership education program while enjoying the company of other nurse managers throughout the organization.

Participants were required to complete all courses to be included in post test results. The participant's desired mode of communication (choices include: face –to-face, electronically and by phone) was used to gather information and to

increase retention in the study. Every effort was made to make this experience one that was beneficial and enjoyable for participants. Participants were tracked through weekly email correspondence (thank you/request for information related to the study). When a participant did not open or acknowledge the weekly thank you email, the participant was called to ensure they were still interested in being part of the study. Upon completion of the study, and both post tests, all participants were emailed a copy of the results with an explanation of their individual pre and post test scores.

Protection of Human Subjects

To ensure the adequacy of human subject protection, Institutional Review Board (IRB) approval was been granted from the University of Texas Health Science Center at Houston, Memorial Hermann Health System and Texas Woman's University. A consent form was developed to provide prospective participants sufficient opportunity to consider whether or not to participate and that minimize the possibility of coercion or undue influence.

Data Collection

Data collection began upon receipt of the research proposal approval from the University of Texas Health Science Center at Houston IRB, Memorial Hermann Health System and Texas Woman's University at Houston IRB and all equipment and supplies were obtained. Data collection protocols and procedures were followed as outlined in Appendix C. Electronic questionnaire packets that consisted of a participant invitation

letter and primary investigator (PI) developed demographic survey (Appendices A & B) were distributed to participants. Informed consent for the study (Appendix H) was obtained after inclusion criteria were met using the demographic survey. Once consent was obtained, the MLQ (Appendices E& F) was administered to the participant and their immediate supervisor. As participants and their immediate supervisor completed the MLQ, a survey number was assigned for the participant. The survey number was affixed to both the participant survey and the survey completed by the participant's immediate supervisor. The survey number was then placed in a sealed box for randomization at a later date. Upon receipt of the first 50 completed packets for participants that met all inclusion criteria, the numbers were then drawn out of the box by the researcher and assigned to either the attention control or intervention group by randomization. Each group consisted of 25 participants. Both the intervention and attention control group participants were then given a list of dates, times and locations for their assigned sessions. A pool of standby managers with survey numbers from 51-60 was developed and the respondents were notified that they would be placed on standby and called according to their number if participants of the sample were unable to complete the study.

The MLQ was administered as a post test to participants and their immediate supervisor in the intervention and attention control groups immediately after completion of the treatment and again after 30 days (see Appendix D). According to Williams (2007), measurements that consider performance improvements can provide a benchmark for training effectiveness. After implementing a training initiative or changing an existing

program, an organization can observe and record a change in performance. To evaluate retention rates, there should be a 2 week to 2 months lag between behavior training and measurements used to evaluate the training.

Data Analysis

SPSS Version 12.0 for Windows was used for data analysis. The Fisher Exact test was chosen to test significant of difference in proportions in the research sample. A 2x2 table was be used to identify proportions of post intervention changes in participants. Both the intervention and attention control groups were used as their own control to determine leadership style. Transformational and transactional leadership style was measured on a nominal scale. The following tables (Tables 3 and 4) depict the results of a pilot study that examined the leadership style of nurse managers pre and post completion of a leadership education program which taught concepts of transformational leadership characteristics and attributes and how to apply the learned behaviors to their daily work.

Data from this study indicated that nurse managers who complete an educational program on transformational leadership behaviors rate their leadership characteristics more positively than nurse managers who did not attend an educational program. Furthermore, post test ratings of the same group of nurse managers by their immediate supervisor were also favorable for transformational leadership behaviors. On the contrary, in most all cases of self ratings and rating by the nurse manager's immediate supervisor, post scores of nurse managers who reviewed and revised policies during the same period of time, changed very little if at all to be more transformational.

The post test measurement for this study was modified based on the results of the pilot study. An additional post test was added immediately post intervention to establish a baseline marker for change in both transactional and transformational scores at the 30 day post test intervention timeframe and to measure if retention occurred. Also, the Fisher Exact test was used to measure the proportion of change to transformational leadership for both post test.

Table 3

Pre test Scores

Group & Pre A

	Pre A	
Group	TAL	TFL
IG	6	0
AC	6	0

Note. Provides the number of transactional (TAL) versus transformational (TFL) pre leadership education program classification scores of transactional nurse managers for attention control (AC) and intervention group (IG).

Table 4

Post test Scores

Group & Post A

	Post A	
Group	TAL	TFL
IG	0	6
AC	6	0

Note. Provides post test ratings of transactional leaders after completion of a transformation leadership education program.

CHAPTER IV

ANALYSIS OF DATA

This study was executed to validate if nurse managers would demonstrate greater transformational leadership attributes and behaviors after completing an educational program designed to teach specific elements of transformational leadership coupled with coaching and mentoring. Formal education and support are needed for nurse managers to effectively function in their role in the current health care environment. Many nurse managers assume their position based on expertise in a clinical role with little expertise in managerial and leadership skills (Zori & Morrison, 2009). There is additional demand for a nurse manager to function as a transformational leader who translates vision, goals and purpose to staff at the unit level. Yet many nurse managers receive little or insufficient education and support for the manager role (Wilson, 2005). Thus, this chapter will outline the methods performed to test the ability to develop nurse managers as transformational leaders.

Description of the Sample

The invitation to participate in this study was sent to all Memorial Hermann Healthcare System nurse managers. The invitation yielded 237 respondents of which only 142 returned the consent form and demographic survey by the set deadline. The calculated sample size for this study was 50 which is considerably less than the number of respondents. To ensure that all nurse managers were given the same opportunity to

participate in the study, the nurse managers were informed that only the first fifty respondents that met all inclusion criteria and completed all materials in the participant packet would be included in the study and that a standby pool of 10 additional respondents over the 50 would be maintained if withdrawal of a participant occurred. All 50 nurse managers included in this study that were randomized into the intervention and attention control groups and had previously consented to participate in the study returned their pre and post test surveys.

The nurse managers who participated in the study were primarily female (96%) and 4% male. The mean age for the nurse managers was 39.16 years with a standard deviation of 13.8. With all participants combined, only 6% were in the age range of 25-29, 18% were in the age range of 30-34, with the largest group in the age range of 35-39 (32%), 22% were 40-44, 14% were 45-49 and 8% were age 50 or older. The nurse managers were responsible for as little as 1 direct report to as many as more than 30 direct reports. 8% of the nurse mangers had 1-10 direct reports, 34% had 11-20 direct reports, 30% had 21-30 direct reports and 28% had more than 30 direct reports. The mean number of direct reports for nurse managers was 19.12 with a standard deviation of .151. Table 5 outlines the data on the nurse manager participants' age, gender and direct reports.

Table 5

Nurse Manager Demographics

	(N=50)			
Characteristic		M	SD	p
Gender (%)			.423	.10
Male	4			
Female	96			
Age Range (%)		39.16	.138	.017
25-29	6			
30-34	9			
35-39	16			
40-44	11			
45-49	7			
50+	4			
Direct Reports (%)		19.12	.151	.021
1-10	8			
11-20	34			
21-30	30			
More than 30	28			

Note. Significant differences in frequency distribution were tested at the 0.01 level.

Table 6 outlines the data of nurse manager participants' years of clinical experience, years of leadership experience and highest level of nursing education. The majority of the nurse managers (58%) held a Baccalaureate degree in nursing. The remainder of the participants held either an Associate degree in nursing (16%) or a Master degree in nursing (26%). Nurse manager participants' clinical experience ranged from 2 years to more than 15 years of experience with a mean of 12.2 years and a standard deviation of .904. 4% of the nurse managers had 2-5 years of clinical experience, 20% had 6-9 years, 28% had 10-15 years and 48% had more than 15year of clinical experience. Leadership experience of the nurse managers ranged from 2 years to 15 years with a mean of 8.18 years and a standard deviation of .572. No one reported having more than 15 years experience. The years of leadership experience reported by nurse managers were as follows: 10% had 2-5 years experience, 66% had 6-9 years experience and 24% had 10-15 years of leadership experience.

Table 6

Nurse Manager Education and Experience

	(N=50)			
Professional Characteristics		*M*	*SD*	*p*
Highest Level of Education (%)		3.10	.647	.091
Associate Degree	16			
Bachelor Degree	58			
Master Degree	26			
Clinical Experience (%)		12.20	.904	.128
2-5 years	4			
6-9 years	20			
10-15 years	28			
More than 15 years	48			
Leadership Experience (%)		8.18	.572	.081
2-5 years	10			
6-9 years	66			
10-15 years	24			
More than 15 years	0			

Hypothesis 1: Nurse managers who work in an acute care hospital setting that complete a leadership education program will demonstrate more transformational leadership characteristics as compared to nurse leaders who do not attend a leadership education program. The hypothesis was tested using the Fisher Exact test which shows statistical significance of .025 using a 1-tailed and $p < .0005$. Classification of leadership style immediately post intervention is presented in Table 7.

The majority of the participants (72%) in the intervention group demonstrated a higher proportion of transformational leadership characteristics and lower transactional attributes on their immediate post test (see Figure 2). Scores demonstrating transformational leadership characteristics such as inspiring followers, providing individualized consideration and meeting their emotional needs and by providing opportunities for intellectual stimulation, or all three are presented in Table 9. Scores demonstrating transactional leadership characteristics such as focusing attention on irregularities, mistakes, exceptions, and deviations from standards are also presented in Table 9.

Table 7

Fisher Exact Test Immediate Post Intervention

Condition * Style Crosstabulation

		Style		
		Transformational Leadership Style	Transactional Leadership Style	Total
Condition				
	Intervention Group	18	7	25
	Attention Control Group	0	25	25
Total		18	32	50

Chi-Square Tests

	Value	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Fisher's Exact Test		.000	.000
N of Valid Cases	50		

a. Computed only for a 2x2 table
b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.00.
Significance calculated at .025 level (1 tailed test).

Hypothesis 2: Nurse managers who complete a leadership education program will demonstrate more transformational leadership characteristics as compared to nurse leaders who do not attend a leadership education program 30 days after completion of the program. Results of the Fisher Exact test shows statistical significance of $p < .0005$ as compared to .025 1-tailed significance in the proportion of transformational leaders in the intervention and control groups (see Table 8).

Follow up post test transformational leadership characteristics of nurse mangers in the intervention group 30 days after completion of the education program revealed that 76% (see Figure 3) of participants demonstrated a higher proportion of transformational leadership characteristics and less transactional leadership attributes. Scores demonstrating transformational leadership characteristics such as inspiring followers, providing individualized consideration and meeting their emotional needs and by providing opportunities for intellectual stimulation, or all three are presented in Table 9. Scores demonstrating transactional leadership characteristics such as focusing attention on irregularities, mistakes, exceptions, and deviations from standards are also presented in Table 9.

Table 8
Fisher Exact Test 30 Days Post Intervention

Condition * Style Crosstabulation

		Style		
		Transformational Leadership Style	Transactional Leadership Style	Total
Condition				
	Intervention Group	19	6	25
	Attention Control Group	0	25	25
Total		19	31	50

Chi-Square Tests

	Value	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Fisher's Exact Test		.000	.000
N of Valid Cases	50		

a. Computed only for a 2x2 table
b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.50.
Significance calculated at .025 level (1 tailed test).

Summary of Findings

This two group pre and post test design study was conducted using probability sampling to measure the effects of a leadership education program in developing transformational characteristics of nurse managers. The surveys return rate and sample size was adequate to achieve a strong statistical power to measure the significance of change in transformational and transactional leadership style pre and post intervention. The majority of the participants of the study were female, which is representative of the composition of the profession of nursing in the United States.

The study was conducted to test the significance of change in transformational and transactional leadership style post intervention. Each participant was used as their own control to measure the significance of change in transformational and transactional scores pre and post intervention. To measure the effectiveness of the intervention, transformational scores were compared for each participant pre and post intervention, with post intervention scores measured immediately after completing the educational program and again 30 days after completion of the program to determine if retention of the information occurred. Tables 7 and 8 depict the Fisher Exact test with 2x2 table of the proportion of post transformational and transactional leaders pre and post intervention and Table 9 outlines all participant data along with numerical identifier and assigned group for each participant.

Eighteen of the twenty five participants in the intervention group improved their transformational score to 3.5 or greater with accompanying transactional score that

decreased to below 2.0 immediately post intervention (See Table 9). The reciprocal relationship of a transformational score at or above 3.5 and a transactional score below 2.0 indicates that the individual exhibited more transformational characteristic than transactional characteristics and is therefore considered to be a transformational leader. Five participants from the intervention group did not have a transformational score at or above 3.5 but did have transactional scores below 2.0 immediately post intervention (See Table 9). This indicates that the participants decreased the number of transactional attributes when leading others and slightly improved their transformational characteristics. For the individuals who fall in this category, additional coaching and mentoring in transformational characteristics would be suggested to improve the transformational score while maintaining the transactional score below 2.0. One participant of the intervention group had a transformational score below 3.5 and a transactional score above 2.0 immediately post intervention (See Table 9). This indicates that the participant did not develop the desired proportion of transformational characteristics while reducing the amount of transactional attributes to be considered as a transformational leader. Of note, none of the participants in the attention control group improved their transformational characteristics to achieve a score of 3.5 or greater immediately post intervention. However, one participant did reduce their transactional score to just below 2.0 (1.98).

Thirty days post intervention, nineteen of the twenty five participants from the intervention group had a transformational score of 3.5 or above. Eighteen of the twenty

five intervention group participants maintained a score of 3.5 or better and one additional participant from the intervention group improved their transformational score 30 days post intervention. Also, twenty one of the twenty five participants from the intervention group had a transactional score below 2.0. This result indicates that three additional participants from the intervention group decreased their transactional leadership attributes 30 days after completion of the education program (See Table 9).

Table 9

Participant Data

Identifier	Pre TFL	Pre TAL	Group	Post TFL	Post TAL	Post TFL2	PostTAL2
1	2.21	2.14	2.00	3.27	1.86	3.40	1.72
2	2.74	2.10	2.00	3.51	1.93	3.55	1.81
3	3.10	2.05	1.00	3.21	2.11	2.97	2.10
4	2.45	2.13	1.00	2.41	2.00	2.80	2.21
5	2.40	2.01	1.00	2.61	2.22	2.50	2.34
6	2.64	2.33	2.00	3.52	1.64	3.54	1.77
7	2.92	2.12	1.00	2.87	2.00	2.65	2.11
8	3.05	2.09	2.00	3.60	1.72	3.58	1.78
9	2.44	2.28	2.00	3.55	1.88	3.70	1.65
10	2.33	2.01	1.00	3.00	2.13	2.97	2.29
11	2.69	2.20	1.00	2.72	2.05	2.51	2.40
12	2.81	2.00	2.00	3.52	1.69	3.52	1.44
13	3.12	2.11	1.00	3.20	2.07	3.04	2.50
14	2.47	2.18	2.00	3.33	1.97	3.47	2.00
15	2.40	2.32	1.00	2.66	2.20	2.87	2.16
16	2.61	2.05	1.00	2.49	2.08	2.21	2.09
17	2.90	2.43	2.00	3.54	1.83	3.55	1.56
18	2.57	2.20	2.00	3.58	1.76	3.62	1.70

Table 9 (cont)

Identifier	Pre TFL	Pre TAL	Group	Post TFL	Post TAL	Post TFL2	PostTAL2
19	2.94	2.51	1.00	2.77	2.16	2.90	2.04
20	3.35	2.96	2.00	3.71	1.44	3.54	1.67
21	3.10	2.71	2.00	3.80	1.62	3.65	1.45
22	2.53	2.12	1.00	2.70	2.24	2.87	2.06
23	2.51	2.33	1.00	3.22	1.98	2.95	2.01
24	2.34	2.09	1.00	2.65	2.11	2.80	2.32
25	2.74	2.00	1.00	2.90	2.41	3.05	2.16
26	2.91	2.22	2.00	3.46	1.78	3.52	1.89
27	2.60	2.36	2.00	3.55	1.82	3.66	1.96
28	3.25	2.02	2.00	3.58	1.61	3.74	1.70
29	2.33	2.11	1.00	2.37	2.53	2.69	2.21
30	2.54	2.04	2.00	3.50	1.66	3.52	1.59
31	2.77	2.24	2.00	3.75	1.42	3.60	1.50
32	2.21	2.09	1.00	2.40	2.08	2.53	2.10
33	2.69	2.14	1.00	3.10	2.33	3.33	2.50
34	2.66	2.23	2.00	3.51	1.89	3.60	1.91
35	2.45	2.00	2.00	3.66	1.52	3.57	1.74
36	3.31	2.07	2.00	3.84	1.35	3.61	1.57
37	2.91	2.15	1.00	3.25	2.06	3.11	2.50

Table 9 (cont)

Identifier	Pre TFL	Pre TAL	Group	Post TFL	Post TAL	Post TFL2	PostTAL2
38	2.31	2.04	1.00	2.40	2.00	2.55	2.14
39	2.78	2.25	2.00	3.62	1.49	3.51	1.70
40	2.99	2.06	2.00	3.78	1.81	3.67	1.95
41	3.19	2.13	2.00	3.53	1.55	3.44	1.88
42	2.46	2.02	1.00	2.48	2.30	3.10	2.41
43	2.84	2.49	1.00	2.40	2.00	2.22	1.99
44	2.62	2.30	1.00	2.75	2.19	2.30	2.06
45	2.55	2.05	2.00	3.40	2.10	3.18	2.33
46	2.33	2.17	1.00	2.21	2.06	2.74	2.21
47	2.71	2.25	2.00	3.39	1.75	3.51	2.00
48	2.85	2.39	1.00	2.90	2.21	3.11	2.30
49	2.96	2.14	2.00	3.47	1.96	2.95	2.10
50	2.49	2.26	1.00	2.57	2.10	2.59	2.04

Note. Participant data in order from 1-50 corresponds with participant identification number.
Pre test transformational (Pre TFL)
Pre test transactional (Pre TAL)
Immediate Post test transformational (Post TFL)
Immediate Post test transactional (Post TAL)
30 day Post test transformational (Post TFL 2)
30 day Post test transactional (Post TAL 2)
Group 1 = Attention Control 2 = Intervention

CHAPTER V

SUMMARY OF THE STUDY

This experimental quantitative study using a pre test and post test design was performed to measure the effectiveness of an education program that was developed to teach transformational leadership attributes and characteristics to transactional nurse mangers. Relevant studies have identified both positive and negative impacts of nurse managers' leadership style on various facets of nursing that range from the unit culture, to patient outcomes and even to the health and well being of the nurse (Boyle, 2004). In addition, this study examined retention of the information learned during the study thirty days after the study was completed. This study was completed to investigate how to educate nurse managers to achieve the outcomes of a transformational leader. The importance of focus on the nurse manger as a key member of the nursing leadership team in driving strategy was the basis for interest in conducting this study as well as the need for transformational leadership at the level of the nurse manager to support the role of the nurse in caring for patients.

Discussion of the Findings

The presented study was conceptualized and designed based on the theoretical framework of transformational leadership and the ability to educate, develop and retain a balance of transformational and transactional leadership attributes that result in a predominate transformational leadership style. The leadership attributes and traits of each

participant nurse manager was measured using the MLQ 5X-short (Avolio and Bass, 2004). Findings of this study indicated that 72% (see Figure 2) of the nurse managers in the intervention group had transformational leadership scores above 3.5 and transactional leadership scores below 2.0 immediately post intervention which suggests that nurse managers can develop transformational leadership attributes through education, coaching and mentoring. This aligns with such studies as (McGuire & Kennerly, 2006, Leach, 2005 and Murphy, 2005) which examined the outcomes and positive impact noted when nurse managers develop transformational leadership attributes and characteristics. McGuire & Kennerly, 2006 goes a step beyond and in recommending that education for nurse managers be revised to focus more on transformational processes.

The nurse managers that changed their leadership style to one that is more transformational than transactional can now be viewed as individuals capable of creating work environments that support change to promote positive clinical outcomes (Newhouse & Mills, 2002). Of great importance to today's healthcare environment, the improvement from transactional to transformational as demonstrated on both post test immediately post intervention and thirty days post intervention, supports that participants have the ability to improve patient safety and quality of care by creating an environment and culture that empowers nurses (Laschinger et. al, 1999). The findings of this study can also be used to answer the IOM 2003 report that called for healthcare organizations to employ leaders that are transformational which translates into individuals who are capable of transforming the beliefs and practices of all healthcare workers and those which will

further influence the development of policies and procedure that fosters patient care and keep the patient safe. This study validates for healthcare organizations that transformational leaders can be developed or transitioned from transactional leaders in their current organizational environment.

Transformational leaders motivate, inspire, influence and stimulate others to perform beyond the limitations of their environment (Noyes, 2002, Mahoney, 2001 and Aroian et al., 1997). Findings of this study support that nurse managers in this study that were participants in the intervention group reduced their transactional characteristics to less than 2.0 at a rate of 92% (see scores in Table 9) immediately following the intervention and at a rate of 84% (see scores in Table 9) thirty days after the intervention. This indicates that the nurse manager viewed themselves and was viewed by their immediate supervisor as demonstrating a greater degree of the attributes that are characteristic of transformational leadership with a minimal increase and balance in transactional attributes.

The 1999 study conducted by Bass contends that behaviors and characteristics of transformational leadership can be learned through individual guidance and workshops. The intervention of this study included a series of education session coupled with coaching and mentoring. As result of this intervention, 72% (see Figure 2) of the participants had transformational scores above 3.5 immediately post intervention and 76% (see Figure 3) of the participants had transformational scores above 3.5 thirty days post intervention. These findings supports Bass's 1999 study conclusion. Also of

significance to the effectiveness of this study is the retention of the learning that was demonstrated by intervention group participants thirty days after completion of the education program. Williams (2007) provides evidence that measuring effectiveness after implementing a training initiative can best be evaluated by measuring retention at an interval of up to two months. The post survey for this study was conducted immediately post intervention to have a baseline of the effectiveness of the intervention and again at thirty days post completion of the intervention to determine if participants retained the information and practiced the attributes learned.

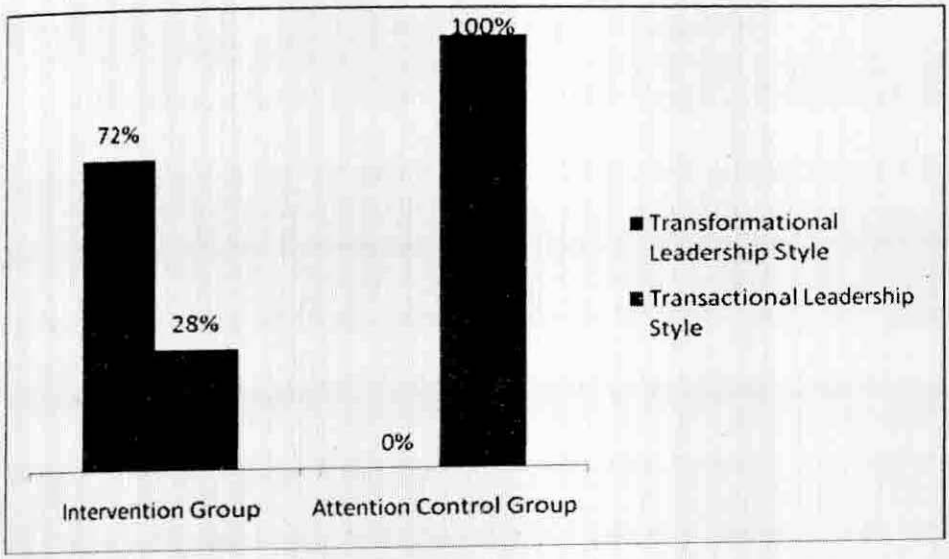


*Figure 2.*Percentage of transformational and transactional leaders immediate post intervention

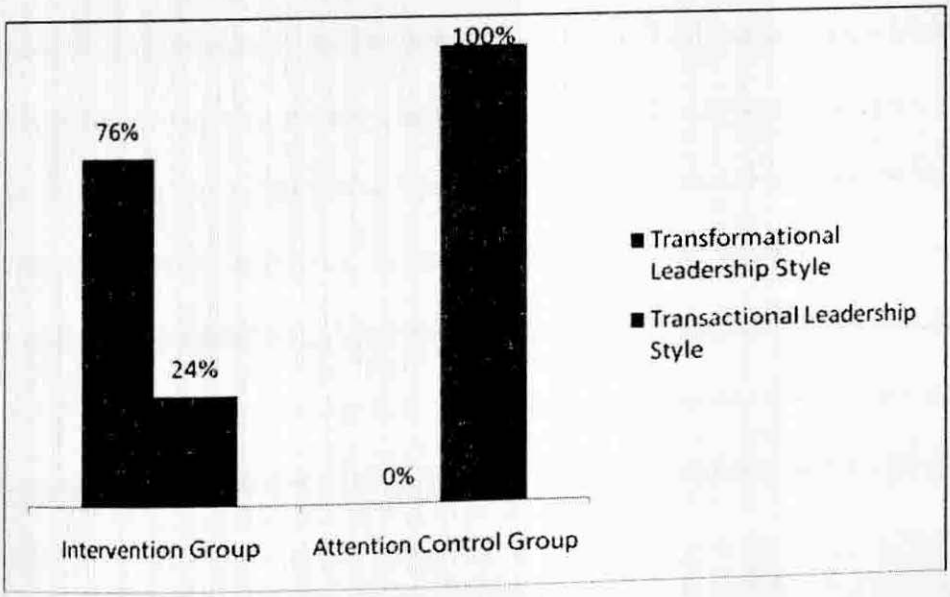


Figure 3. Percentage of transformational and transactional leaders 30 days post intervention.

Conclusions and Implications

The interest for this study was derived from gaps in the literature in identifying leadership style that would support the role of the nurse manager as an effective leader in our current healthcare environment where data and patient outcomes are now becoming a matter of public record for all. Transformational leadership style was examined as a process for both change and development based on exhibited attributes and characteristics presented in this study. The education program appeared to be an effective intervention for developing transformational leadership characteristics and changing transactional leadership attributes used by nurse managers in their day to day work.

The outcomes of this study can be applied practically in four areas of nursing leadership development and for monitoring nursing unit performance. First, improving education and training for nurse managers at any education or experience level is achievable for any organization by focusing on transformational leadership characteristics and attributes. Training and educating nurse managers to practice transformational leadership attributes such as establishing clear expectations, creating a shared vision for the nursing unit, inspiring and motivating subordinates to perform beyond basic expectations, creating a sense of team spirit on the nursing unit, effective listening skills, coaching and mentoring is a journey healthcare organizations are willing to take with their nursing leadership team (Dixon, 1999).

A second implication for this study supports the use of coaching and mentoring for nurse managers. Through evaluation of leadership style of current nurse managers and

assigning mentors and coaches to nurse managers based on their transformational score or their specific attribute that returns a score of less than 3.5, the attribute score may improve over time with role modeled behaviors. For example, if a nurse manager scores below 3.5 on any one or multiple attributes of transformational leadership (idealized influence, idealized behavior, inspirational motivation, intellectual stimulation and individualized consideration), a mentor or coach with a transformational score of 3.5 or higher on the respective attribute may be assigned to assist the individual in improving their score by modeling and coaching defined attributes and behaviors.

Thirdly, implications of this study can be used to pre screen nurse manager applicants/candidates for transformational leadership characteristics and attributes. The screening should not necessarily be used as a hiring decision but instead should be used to develop an individualized learning plan for the individual to develop or strengthen transformational leadership characteristics when hired or promoted into the position of nurse manager. Lastly, further implications of this study may be considered when evaluating nursing units that struggle with meeting established organizational goals and strategies. Organizations should first examine if other like units are able to achieve established goals and strategies; if so, then the leadership style of the nurse manager may be evaluated to determine the degree of transformational versus transactional characteristics and attributes demonstrated by the nurse manager. Clegg (2000) states, "Transformational leadership is the ability to motivate others to pursue high standards

and to achieve long-term goals. In healthcare, transformational leadership is a pivotal factor in optimizing team performance in the delivery of care."

The results of this study demonstrate that an education program intervention improved the proportion to which nurse managers used transformational versus transactional leadership attributes and characteristics in their daily work environment. Implications from this finding provide moderate range and long term application for nurse manager education, training and ongoing development. Immediate application of the results of this study will be implemented by educating all nurse managers at Memorial Hermann Hospital Texas Medical Center on the theory of transformational leadership and how transformational leadership characteristics and attributes can be translated into their daily work processes and unit operations.

Recommendations for Further Study

The conclusions and implications presented for this study highlight the importance of differentiating nurse managers according to their leadership style and the need to develop leadership characteristics and attributes that will enable nurse manager to lead in a manner that supports change and produce goal directed outcomes that support the organizations' strategies for delivering patient care. However, there were three limitations of this study. The first limitation was the ratio of participants to trainer. Both the attention control group and intervention group were composed of twenty five participants. The venue for each session was acceptable; however, due to the participative structure of each education session for the intervention group, the sessions usually ran

over the preset two hour timeframe. Also, every other week (weeks 2, 4 and 6) coaching and mentoring sessions were scheduled daily to ensure that each participant had the same access to all interventions. Future studies should include validating a minimal number of participants to include in vignette style learning to teach transformational leadership characteristics and attributes to achieve a success rate of at least 95% in improving transformational leadership scores immediately post intervention, to improve the success rate after 30 days and to maintain transformational scores for more than 180 days.

The second limitation was the time span for education and training. The training sessions were scheduled over a period of eight weeks. Further investigation should explore the appropriate timing of the education sessions. For example, should the sessions be ongoing on a monthly basis throughout the course of a year with weekly coaching and mentoring as oppose to the structure of the intervention for this study which would be suggested as yearly with every other week coaching and mentoring sessions during the education program period. The third limitation was that each individual received an overall transformational score and an overall transactional score. Some individuals scored above 3.5 on one or more of the transformational leadership characteristics and some also scored below 2.0 on one or more of the transactional leadership attributes. Separating the scores by each characteristic or attribute could have lent to an individualized approach to teaching and learning for each participant.

REFERENCES

Aarons, G. (2006). Transformational and transactional leadership: Association with attitudes toward evidence-based practice. *Psychiatric Services, 56*, 1162-1169.

Aiken, L. H. (2005). *Improving quality through nursing.* Policy Challenges in Modern Health Care. New Jersey: Rutgers University Press.

Aiken, L. H., Clarke, S. P. & Sloane, D. M. (2000). Hospital restructuring: Does it adversely affect care and outcomes? *Journal of Nursing Administration, 30*, 457-465.

Al-Mailam, F. (2004). Transactional versus transformational style of leadership-employee perception of leadership efficacy in public and private hospitals in Kuwait, *Quality Management in Health Care, 13,* 278-284.

American Organization of Nurse Executives. The role and functions of the hospital nurse manager. *Nurse Manager.* 1992; 23(9): 36-38.

Antonakis, J., Avolio, B., & Sivasubramaniam, N. (2003). Context and leadership: An examination of the nine-factor full range leadership theory using the Multifactor Leadership Questionnaire. *Leadership Quarterly, 14,* 261-295.

Aroian, J., Horvath, J., Secatore, H., Alpert, M., Costa, E., Powers, S. and Stengrevies, S. (1997). Nurse manager role implementation. *Journal of Nursing Administration,* 24: 27-31.

Avolio, B. & Bass, B. (2002). *Manual for the Multifactor Leadership Questionnaire (Form 5X)*. Redwood City: Mindgarden.

Avolio, B. & Bass, B. (2004). Multifactoral Leadership Questionnaire. Mind Garden Inc. www.mindgarden.com. Online purchase 03/15/2007.

Bass, B. M. (1985). *Leadership and performance beyond expectations*. (2nd ed.). New York: Free Press.

Bass, B. M., & Yammarino, F.J. (1991). Congruence of serf and others' leadership ratings of naval officers for understanding successful performance. *Applied Psychology; 40*, 437-454.

Bass, B. M. (1999). *Concepts of leadership*. (2nd ed). California: Sage Publications.

Boykin, A. & Schoenhofer, S. (2001). The role of nursing leadership in creating caring environments in health care delivery systems. *Nursing Administration Quarterly, 25*, 3-11.

Boyle, S. (2004). Nursing unit characteristics and patient outcomes. *Nursing Economics, 22*, 111-123.

Burns, J. M. (1978). *Leadership*. (1st ed.). Harper and Row, New York, NY.

Tacetta-Chapnick, M. (1996). Transformational leadership. *Nursing Administration Quarterly, 21*, 60-67.

Clegg, A. (2000). Leadership: Improving the quality of patient care. *Nursing Standard, 14*, 40-45.

Cook, M. (2001). The renaissance of clinical leadership. *International nursing review, 48*: 38-46.

Firth-Cozens, J. & Mowbray, D. (2001). Leadership and the quality of care. *Quality in Health Care, 10*, 5-8.

Cummings, G., Hayduk, L. & Eastbrooks, C. (2005). Mitigating the impact of hospital restructuring on nurses: The responsibility of emotionally intelligent leadership. *Nursing Research, 54*, 2-12.

Dixon, D. L. (1999). Achieving results through transformational leadership. *The Journal of Nursing Administration, 12*, 17-21.

Deutschendorf, A. (2003). Unique care delivery models to facilitate nursing work and quality outcomes. *Journal of Nursing Administration, 33*, 52-58.

Dunham-Taylor, J. (2000). Nurse executive transformational leadership found in participative organizations. *Journal of Nursing Administration, 30*, 241-250.

Ekvall, G. & Arvonen, J. (1994). Leadership profiles, situations and effectiveness. *Creativity and Innovation Management, 3*, 139.161.

Force, M. (2005). The relationship between effective nurse managers and nurse retention. *Journal of Nursing Administration, 35*, 336-342.

Fralic, M. (1999). Nursing leadership for the new millennium: Essential knowledge and skills. *Nursing and Health Care Perspectives, 20*, 260-265.

Ganz, N. R., Sorenson, L. & Howard, R. L. (2003). A collaborative perspective on nursing leadership in quality improvement: the foundation for outcomes

management and patient/staff safety in health care environments. *Nursing Administration Quarterly, 27,* 324-330.

Gautam, K. S. 2005. A Call for Board Leader ship on Quality in Hospitals. *Quality Management in Health Care, 14,* 18-30.

Hersey, P. & Blanchard, K. H. (1988). *Management of organizational behavior: Utilizing human resources* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.

House, R. J. (1976). *Leadership: The cutting edge.* Carbondale: Southern Illinois University Press.

Huber, D. L., Mass, M., McCloskey, J., Scherb, C. A., Goode, C. J. & Watson, C. (2000). Evaluating nursing administration instruments. *Journal of Nursing Administration, 30,* 251-272.

Hyett, E. (2003). What blocks health visitors from taking on a leadership role? *Journal of Nursing Management, 11,* 229-233.

Institute of Medicine (IOM) (1999). *To err is human.* Washington, DC: National Academy Press.

Institute of Medicine (IOM) (2001). Committee on Quality of Health Care in America: *Crossing the quality chasm.* Washington, DC: National Academy Press.

Institute of Medicine (IOM) (2003). Committee on Quality of Health Care in America: *Keeping patients safe Transforming the work environment of nurses.* Washington, DC: National Academy Press.

Johnson, S. (2005). Characteristics of Effective Health Care Managers. *The Healthcare Manager, 24*, 24-28.

Koontz H. & Weihrich H. (1990) Essential of Management, (5th ed.), McGraw-Hill, New York.

Lageson, C. (2004). Quality focus of the first line manager and relationship to unit outcomes. *Journal of Nursing Quality, 19*, 336-342.

Laschinger, H., Wong, C., McMahon, L. & Kaufmann, C. (1999). Leader behavior impact on staff nurse empowerment, job tension and work effectiveness. *Journal of Nursing Administration, 29*, 28-39.

Leach, L. (2005). Nurse executive transformational leadership and organizational commitment. Journal of Nursing Administration, 35, 228-237.

Lowe, K. B. & Galen Kroeck, K. (1996). Effectiveness correlates of transformational leadership: A meta-analytic review of the MLQ literature. *Leadership Quarterly, 7*, 385-426.

Mahoney, J. (2001). Leadership skills for the 21st century. *Journal of Nursing Management,* 9: 269-271.

Manojlovich, M. (2005). Promoting nurse's self-efficacy: A leadership strategy to improve practice. *Journal of Nursing Administration, 35*, 271-278.

McGuire, E. & Kennerly, S. (2006). Nurse managers as transformational and transactional leaders. *Nursing Economics, 24*, 179-185.

Murphy, L . (2005). Transformational leadership: a cascading chain reaction. *Journal of Nursing Management, 13*, 128–136.

Newhouse, R. & Mills, M. (2002). Enhancing a professional environment in the organizational delivery system: Lessons in building trust for the nurse administrator. *Nursing Administration Quarterly, 26*, 67-75.

Norrish, B. & Rundall, T. (2001). Hospital restructuring and the work of registered nurses. *The Milbank Quarterly, 79*, 55-79.

Northouse, P. (2004). *Leadership theory and practice*. (3rd ed.). California: Sage Publications.

Noyes, B. J. (2002). Midlevel management education. *Journal of Nursing Administration,* 32: 25-36.

Ohman, K. (1999). Nurse manager leadership. *The Journal of Nursing Administration, 29,* 16-21.

Outhwaite, S. (2003). The importance of leadership in the development of an integrated team. *Journal of Nursing Management,* 11: 371-76.

Perra, B. M. (2000). Leadership: The key to quality outcomes. *Nursing Administration Quarterly, 24,* 56-61.

Pintar, K. A., Capuano, T. A. & Rosser, G. D. (2007). Developing clinical leadership capability. *The Journal of Continuing Education in Nursing, 38*, 115-121.

Polit, D. & Beck, C. (2004). *Nursing research: Principles and methods* (7th ed.). Philadelphia: Lippincott Williams &Wilkins.

Porter-O'Grady, T. (2003). Of Hubris and Hope: Transforming Nursing For a New Age. *Nursing Economics, 21*, 59-64.

Sellgren, S., Ekvall, G. & Tomson, G. (2006). Leadership styles in nursing management: Preferred and perceived. *Journal of Nursing Management; 14*, 348-355.

Tappen, R. M. (2001). *Nursing leadership and management: concepts and practice* (4th ed.). F. A. Davis Company: Philadelphia.

Walshe, K. & Rundall, T. (2001). Evidence-based management: From theory to practice in healthcare. *Milbank Quarterly, 79*, 429-457.

Ward, K. (2002). A vision for tomorrow: Transformational nursing leaders. *Nursing Outlook, 50*, 121-126.

Warden, G. (2002). Leadership in quality: Some things to think about. *Quality Management in Health Care, 11*, 4-10.

Williams, D. (2007). Measuring training effectiveness. *The Training Magazine, 8*, 22-26.

Wilson, A. (2005). Impact of management development on nurse retention. *Nursing Administration Quarterly, 29*, 137-145.

Wren, D. (1994). *The Evolution of Management Thought.* (4th ed.). Oklahoma: John Wiley & Sons, Inc.

Yukl, G & Lepsinger, R. (2007). Getting It Done: Four Ways to Translate Strategy into Results. *Leadership in Action, 27*, 3-7.

Zori, S & Morrison, B. (2009). Critical Thinking in Nurse Managers. *Nursing Economics, 27*, 75-79.

APPENDIX A

Participant Invitation Letter

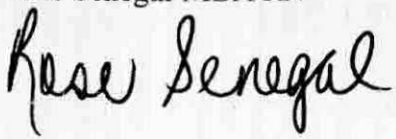
Participant Invitation Letter

Dear Nurse Manager:

Thank you for taking time to consider participation in my research. I am a Doctoral student in the School of Nursing at Texas Woman's University. I am conducting a study at Memorial Hermann Hospital in the Texas Medical Center to understand the impact of a leadership education program on the leadership style, behaviors and attributes of nurse managers. Approximately 24-25 nurse leaders will be invited to participate. If you are interested in participating in this study, please complete the attached demographic survey. Your participation in this study is voluntary. Your right to decline participation will be respected without any jeopardy to you or your employment. Participants who meet the inclusion criteria will be asked to sign a consent form. After signing the consent form, participants will be contacted with further instructions for completing a leadership style assessment survey and on location and times for the leadership program if selected for the study. If you would like more information on this study, I can be reached at the cellular number provided.

As a nurse manager, your leadership expertise is important and essential. Thank you for your time and consideration, I look forward to your participation.

Sincerely
Rose Senegal MBA RN



APPENDIX B

Demographic Survey

INSTRUCTIONS

This survey contains questions about your background, including education and experience. Please answer each question by filling in the circle next to the number on the **ANSWER SHEET**.

Q1. Age
a. 20-24
b. 25-29
c. 30-34
d. 35-39
e. 40-44
f. 45-49
g. 50+

Q2. Gender
a. Male
b. Female

Q3. Nursing Education
a. Diploma
b. Associate Degree
c. Baccalaureate in Nursing
d. Master in Nursing
e. Doctorate in Nursing
f. Other

Q4. Total years of Nursing Leadership Experience
a. Less than 2 year
b. 2-5 years
c. 6-9 years
d. 10-15 years
e. More than 15 years

Q5. Number of direct reports
a. None
b. 1-10
c. 11-20
d. 21-30
e. More than 30

Q6. What is your employment status?
a. Full time
b. Part time
c. Other

Q7. Excluding your Nursing Leadership experience, what is years of clinical experience?

a. Less than 2 year
b. 2-5 years
c. 6-9 years
d. 10-15 years
e. More than 15 years

Q8. At what facility are your employed?

a. Texas Medical Center
b. Southeast
c. Southwest
d. Memorial City
e. Katy
f. Sugarland
g. Woodlands

APPENDIX C

Protocols and Procedures for Data Collection

Protocols and Procedures for Data Collection

Baseline Phase

1. Record data collection start time and date for Baseline Phase
2. Compile a list of all nurse managers in the Memorial Hermann Health System
3. Introduce myself to nurse managers at the monthly nursing leadership meeting of their facility. Explain the purpose and procedure of the study and invite leaders to participate
4. Send invitation for participation via email to all nurse managers in the Memorial Hermann Health System
5. Have demographic profiles completed
6. Obtain informed consent from all nurse managers in the Memorial Hermann Health System who are not excluded based on inclusion criteria
7. Administer Multifactor Leadership Questionnaire (pre-test) to nurse managers and their immediate supervisor
8. Repeat steps 3-7 via email if sample size is not reached during first call for participants

Intervention Phase

1. Record data collection start time and date for Intervention Phase
2. Develop an email contact list for all participants to be used for weekly check-in
3. Randomize sample. Assign participants to intervention or attention control group
4. Provide participants with instructions via email of specific time and location of their group session
5. Provide 2 hour sessions weekly for a period of 8 weeks. An additional 2 weeks will be added for makeup sessions

6. Perform 1 hour coaching and mentoring sessions every other week on the nurse manger's unit

7. Send weekly email to all participants thanking them for their participation in the study and as a motivation effort to keep up the momentum.

Reversal Phase

1. All interventions will cease

2. Record date and time for start of Reversal Phase

3. Administer post-test immediately after completion of all sessions and again 30 days after completion

4. Meet with statistician

5. Analyze results

6. Share results with participants and institution

APPENDIX D

Treatment Procedures

Treatment Procedures

The treatment for the experimental group in this study included participation in a 2 month leadership education program (classes will be held weekly) that will include the following courses:

- How to manage yourself
- How to lead others
- How to resist overreacting to difficult situations
- Prioritization
- Conflict resolution
- The importance of responsibility, accountability, and commitment
- Skills for building trust among team members

See course description and objectives for transformational leadership attribute associated with each course listed above along with the week scheduled for each session. week eight was reserved for makeup sessions. Weeks two, four and six included coaching and mentoring sessions on the nurse manager's unit.

The attention control group will attend weekly informational sessions that will focus on changes in hospital and System policies and procedures. The discussion will include the impact of changes in policy on the facility and how the change will be implemented.

Intervention Group
Course Description and Objectives

The courses listed below have been used to develop transformational leadership practices that are fundamental to transforming nurses' work settings into healthy work environments. The leadership practices have been shown to result in positive outcomes for patients, nurses and organizations (Ward, 2002). Each course is associated with a transformational leadership characteristic and attribute from Bass' (1985) Transformational Leadership Model (see page 10).

I. How to manage yourself (Week 1)
Foundation for building Transformational Leadership Characteristics
Managers and leaders bring their whole selves to work. This calls for the need to identify the values, beliefs and goals of the individual and determine if there are conflicts with the values, mission and goals of the organization. Managers and leaders must first ensure that they are able to manage themselves before trying to lead others.

Description: participants will define contributions they want to make as a manager and leader and will learn to effectively manage themselves before trying to lead others.

Role play: will role play managing time, temperament and expectations of team members. Participants will be given a list of daily unit competing priorities and will be asked demonstrate how they would manage the list. Participants will role play a scenario that causes daily frustration in their work environment. Participants will role play communicating expectations to team members.

Objective: will focus on what they are able to influence, will expand their resources without limiting them.

II. How to lead others (Week 2)
Transformational Leadership Characteristic (Individualized Consideration)
Represented by leaders who provide a supportive climate where the leader listens carefully to the individual needs of followers.

Description: participants will learn the art of active listening, the balance of courage and consideration and how to manage performance through a win-win process

Role play: group will role play a scenario of internal noncompliance for standards on their unit and how to coach team member performance

Objective: will be able to give straightforward, honest and accurate feedback that builds relationships and gets results. Will help team members see and focus on alternatives instead of barriers.

III. How to resist overreacting to difficult situations (Week 3)
Transformational Leadership Characteristic (Intellectual Stimulation)
Leadership that stimulates followers to be creative and innovative while challenging their own beliefs and values as well as those of the leader and the organization.

Description: assist participants to identify and use their own resourcefulness and initiative to overcome barriers to achieving outstanding results.

Role play: being proactive with situations that occur frequently on a nursing unit and involves a department that supports nursing. (Group will agree on the situation)

Objective: participants will develop behaviors that challenge the status quo, will offer creative options to effectively resolve everyday situations in a new way.

IV. Prioritization (Week 4)
Transformational Leadership Characteristic (Idealized Influence)
Characterized by leaders who act as a strong role model for followers. The leader is organized and displays a sense of power and confidence. The leader has socialized charisma. Followers admire, respect and trust these leaders.

Description: participants will learn to approach their daily activities with the end in mind. Participants will also learn to behaviors that will lead to actions of a highly purposed manager.

Role play: each participant will be given a template of a project plan and given 30 min to complete the project plan by laying out how to plan a unit project for implementation. Participants will present their project plan to the group and investigator will lead the feedback session.

Objective: participants will prioritize, plan and lead unit projects that are consistent and well planned with a focus on improving unit outcomes and functionality. Participants will plan weekly and act daily.

V. Conflict resolution (Week 5)
Transformational Leadership Characteristic (Inspirational Motivation)
Describes leaders who communicate high expectations to followers while inspiring them through motivation. As a result team spirit is aroused and enthusiasm and optimism are displayed.

Description: participants will learn productive ways to deal with conflict.

Role play: recent experiences of conflict will be discussed and role played as how to and what to avoid when handling conflict.

Objective: participants will demonstrate creative solutions to problems and conflicts as well as opportunities to coach and mentor others in conflict resolution

VI. The importance of responsibility, accountability, and commitment (Week 6)
Transformational Leadership Characteristic (Idealized Influence)
Characterized by leaders who act as a strong role model for followers. The leader is organized and displays a sense of power and confidence. The leader has socialized charisma. Followers admire, respect and trust these leaders

Description: participants will learn to manage performance through a balance of trust and accountability.

Role play: participants will identify a unit standard that present challenges for staff in maintaining consistent compliance. Will also role play performance management through a win-win process with a balance of commitment and accountability.

Objective: will define practical outcomes, set standards and expectations and holds employees accountable.

VII. Skills for building trust among team members (Week 7)
Transformational Leadership Characteristic (Idealized Influence)
Characterized by leaders who act as a strong role model for followers. The leader is organized and displays a sense of power and confidence. The leader has socialized charisma. Followers admire, respect and trust these leaders

Description: participants will learn to build trust among team members and how seek first to understand then to be understood.

Role play: participants will identify a recent occurrence on their unit and share the incident with the group. The group will role play the situation and identify methods to motivate team members to look beyond their own interest and toward interest that will benefit the group.

Objective: will build and nurture a unit environment that is creative, collaborative and flexible to build trust among team members.

APPENDIX E

Multifactor Leadership Questionnaire

Leader Form

Multifactor Leadership Questionnaire

Leader Form

My Name: _____ Date: _____

Organization ID #: _____ Leader ID #: _____

This questionnaire is to describe your leadership style as you perceive it. Please answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.**

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you. The word others may mean your peers, clients, direct reports, supervisors, and/or all of these individuals.

Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

1.	I provide others with assistance in exchange for their efforts	0	1	2	3	4
2.	I re-examine critical assumptions to question whether they are appropriate	0	1	2	3	4
3.	I fail to interfere until problems become serious	0	1	2	3	4
4.	I focus attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5.	I avoid getting involved when important issues arise	0	1	2	3	4
6.	I talk about my most important values and beliefs	0	1	2	3	4
7.	I am absent when needed	0	1	2	3	4
8.	I seek differing perspectives when solving problems	0	1	2	3	4
9.	I talk optimistically about the future	0	1	2	3	4
10.	I instill pride in others for being associated with me	0	1	2	3	4
11.	I discuss in specific terms who is responsible for achieving performance targets	0	1	2	3	4
12.	I wait for things to go wrong before taking action	0	1	2	3	4
13.	I talk enthusiastically about what needs to be accomplished	0	1	2	3	4
14.	I specify the importance of having a strong sense of purpose	0	1	2	3	4
15.	I spend time teaching and coaching	0	1	2	3	4

Continued •

Not at all	Once in a while	Sometimes	Fairly often	Frequently, If not always
0	1	2	3	4

16. I make clear what one can expect to receive when performance goals are achieved 0 1 2 3 4
17. I show that I am a firm believer in If it ain t broke, don t fix it. 0 1 2 3 4
18. I go beyond self-interest for the good of the group 0 1 2 3 4
19. I treat others as individuals rather than just as a member of a group 0 1 2 3 4
20. I demonstrate that problems must become chronic before I take action 0 1 2 3 4
21. I act in ways that build others respect for me 0 1 2 3 4
22. I concentrate my full attention on dealing with mistakes, complaints, and failures 0 1 2 3 4
23. I consider the moral and ethical consequences of decisions 0 1 2 3 4
24. I keep track of all mistakes 0 1 2 3 4
25. I display a sense of power and confidence 0 1 2 3 4
26. I articulate a compelling vision of the future 0 1 2 3 4
27. I direct my attention toward failures to meet standards 0 1 2 3 4
28. I avoid making decisions 0 1 2 3 4
29. I consider an individual as having different needs, abilities, and aspirations from others 0 1 2 3 4
30. I get others to look at problems from many different angles 0 1 2 3 4
31. I help others to develop their strengths 0 1 2 3 4
32. I suggest new ways of looking at how to complete assignments 0 1 2 3 4
33. I delay responding to urgent questions 0 1 2 3 4
34. I emphasize the importance of having a collective sense of mission 0 1 2 3 4
35. I express satisfaction when others meet expectations 0 1 2 3 4
36. I express confidence that goals will be achieved 0 1 2 3 4
37. I am effective in meeting others job-related needs 0 1 2 3 4
38. I use methods of leadership that are satisfying 0 1 2 3 4
39. I get others to do more than they expected to do 0 1 2 3 4
40. I am effective in representing others to higher authority 0 1 2 3 4
41. I work with others in a satisfactory way 0 1 2 3 4
42. I heighten others desire to succeed 0 1 2 3 4
43. I am effective in meeting organizational requirements 0 1 2 3 4
44. I increase others willingness to try harder 0 1 2 3 4
45. I lead a group that is effective 0 1 2 3 4

APPENDIX F

Multifactor Leadership Questionnaire

Rater Form

Multifactor Leadership Questionnaire
Rater Form

Name of Leader: _____ Date: _____

Organization ID #: _____ Leader ID #: _____

This questionnaire is used to describe the leadership style of the above-mentioned individual as you perceive it. Answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.** Please answer this questionnaire anonymously.

Important (necessary for processing): Which best describes you?

___ I am at a higher organizational level than the person I am rating.
___ The person I am rating is at my organizational level.
___ I am at a lower organizational level than the person I am rating.
___ Other than the above.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

The Person I Am Rating. . .

1.	Provides me with assistance in exchange for my efforts	0	1	2	3	4
2.	Re-examines critical assumptions to question whether they are appropriate	0	1	2	3	4
3.	Fails to interfere until problems become serious	0	1	2	3	4
4.	Focuses attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5.	Avoids getting involved when important issues arise	0	1	2	3	4
6.	Talks about his/her most important values and beliefs	0	1	2	3	4
7.	Is absent when needed	0	1	2	3	4
8.	Seeks differing perspectives when solving problems	0	1	2	3	4
9.	Talks optimistically about the future	0	1	2	3	4
10.	Instills pride in me for being associated with him/her	0	1	2	3	4
11.	Discusses in specific terms who is responsible for achieving performance targets	0	1	2	3	4
12.	Waits for things to go wrong before taking action	0	1	2	3	4
13.	Talks enthusiastically about what needs to be accomplished	0	1	2	3	4
14.	Specifies the importance of having a strong sense of purpose	0	1	2	3	4
15.	Spends time teaching and coaching	0	1	2	3	4

Continued •

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

16. Makes clear what one can expect to receive when performance goals are achieved 0 1 2 3 4
17. Shows that he/she is a firm believer in If it ain t broke, don t fix it. 0 1 2 3 4
18. Goes beyond self-interest for the good of the group 0 1 2 3 4
19. Treats me as an individual rather than just as a member of a group 0 1 2 3 4
20. Demonstrates that problems must become chronic before taking action 0 1 2 3 4
21. Acts in ways that builds my respect 0 1 2 3 4
22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures 0 1 2 3 4
23. Considers the moral and ethical consequences of decisions 0 1 2 3 4
24. Keeps track of all mistakes 0 1 2 3 4
25. Displays a sense of power and confidence 0 1 2 3 4
26. Articulates a compelling vision of the future 0 1 2 3 4
27. Directs my attention toward failures to meet standards 0 1 2 3 4
28. Avoids making decisions 0 1 2 3 4
29. Considers me as having different needs, abilities, and aspirations from others 0 1 2 3 4
30. Gets me to look at problems from many different angles 0 1 2 3 4
31. Helps me to develop my strengths 0 1 2 3 4
32. Suggests new ways of looking at how to complete assignments 0 1 2 3 4
33. Delays responding to urgent questions 0 1 2 3 4
34. Emphasizes the importance of having a collective sense of mission 0 1 2 3 4
35. Expresses satisfaction when I meet expectations 0 1 2 3 4
36. Expresses confidence that goals will be achieved 0 1 2 3 4
37. Is effective in meeting my job-related needs 0 1 2 3 4
38. Uses methods of leadership that are satisfying 0 1 2 3 4
39. Gets me to do more than I expected to do 0 1 2 3 4
40. Is effective in representing me to higher authority 0 1 2 3 4
41. Works with me in a satisfactory way 0 1 2 3 4
42. Heightens my desire to succeed 0 1 2 3 4
43. Is effective in meeting organizational requirements 0 1 2 3 4
44. Increases my willingness to try harder 0 1 2 3 4
45. Leads a group that is effective 0 1 2 3 4

APPENDIX G

Multifactor Leadership Questionnaire

Scoring Key (5x) Short

MLQ Multifactor Leadership Questionnaire
Scoring Key (5x) Short

My Name: _____ Date: _____

Organization ID #: _____ Leader ID #: _____

Scoring: The MLQ scale scores are average scores for the items on the scale. The score can be derived by summing the items and dividing by the number of items that make up the scale. **If an item is left blank, divide the total for that scale by the number of items answered.** All of the leadership style scales have four items, Extra Effort has three items, Effectiveness has four items, and Satisfaction has two items.

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

Idealized Influence (Attributed) total/4 =
Idealized Influence (Behavior) total/4 =
Inspirational Motivation total/4 =
Intellectual Stimulation total/4 =
Individual Consideration total/4 =
Contingent Reward total/4 =
Management-by-Exception (Active) total/4 =
Management-by-Exception (Passive) total/4 =
Laissez-faire Leadership total/4 =
Extra Effort total/3 =
Effectiveness total/4 =
Satisfaction total/2 =

1. Contingent Reward ..0 1 2 3 4
2. Intellectual Stimulation ..0 1 2 3 4
3. Management-by-Exception (Passive) ..0 1 2 3 4
4. Management-by-Exception (Active) ...0 1 2 3 4
5. Laissez-faire Leadership 0 1 2 3 4
6. Idealized Influence (Behavior) 0 1 2 3 4
7. Laissez-faire Leadership 0 1 2 3 4
8. Intellectual Stimulation 0 1 2 3 4
9. Inspirational Motivation 0 1 2 3 4
10. Idealized Influence (Attributed) 0 1 2 3 4
11. Contingent Reward 0 1 2 3 4
12. Management-by-Exception (Passive) 0 1 2 3 4
13. Inspirational Motivation 0 1 2 3 4
14. Idealized Influence (Behavior) 0 1 2 3 4
15. Individual Consideration 0 1 2 3 4

Continued •

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

16. Contingent Reward	0	1	2	3	4
17. Management-by-Exception (Passive)	0	1	2	3	4
18. Idealized Influence (Attributed)	0	1	2	3	4
19. Individual Consideration	0	1	2	3	4
20. Management-by-Exception (Passive)	0	1	2	3	4
21. Idealized Influence (Attributed)	0	1	2	3	4
22. Management-by-Exception (Active)	0	1	2	3	4
23. Idealized Influence (Behavior)	0	1	2	3	4
24. Management-by-Exception (Active)	0	1	2	3	4
25. Idealized Influence (Attributed)	0	1	2	3	4
26. Inspirational Motivation	0	1	2	3	4
27. Management-by-Exception (Active)	0	1	2	3	4
28. Laissez-faire Leadership	0	1	2	3	4
29. Individual Consideration	0	1	2	3	4
30. Intellectual Stimulation	0	1	2	3	4
31. Individual Consideration	0	1	2	3	4
32. Intellectual Stimulation	0	1	2	3	4
33. Laissez-faire Leadership	0	1	2	3	4
34. Idealized Influence (Behavior)	0	1	2	3	4
35. Contingent Reward	0	1	2	3	4
36. Inspirational Motivation	0	1	2	3	4
37. Effectiveness	0	1	2	3	4
38. Satisfaction	0	1	2	3	4
39. Extra Effort	0	1	2	3	4
40. Effectiveness	0	1	2	3	4
41. Satisfaction	0	1	2	3	4
42. Extra Effort	0	1	2	3	4
43. Effectiveness	0	1	2	3	4
44. Extra Effort	0	1	2	3	4
45. Effectiveness	0	1	2	3	4

APPENDIX H

An Evaluation of the Effectiveness of an Educational Intervention in Developing Transformational Leaders in Nursing
HSC-MH-07-0366

An Evaluation of the Effectiveness of an Educational Intervention in Developing Transformational Leaders in Nursing
HSC-MH-07-0366

INFORMED CONSENT FOR RESEARCH STUDY

INVITATION TO TAKE PART

You are being invited to take part in a research project called: An Evaluation of the Effectiveness of an Educational Intervention in Developing Transformational Leaders in Nursing conducted by Rose Senegal RN, MBA. Your decision to take part is voluntary and you may refuse to take part, or choose to stop taking part, at any time. A decision not to take part or to stop being a part of the research project will not change the status of your employment. You may refuse to answer any questions asked or written on any forms. This research project has been reviewed by the Committee for the Protection of Human Subjects (CPHS) of the University of Texas Health Science Center at Houston as Protocol Number: (HSC-MH-07-0366)

Please take your time to make a decision, and discuss this proposal with your family members and friends if you wish.

QUESTIONS

If you have any comments or questions about this study, please call the principle investigator Rose Senegal at cellular number provided.

DESCRIPTION OF RESEARCH

The purpose of this study is to understand the impact of a leadership education program on the leadership style, behaviors and attributes of nurse managers. The results of this study may be used to examine the education needs of nurse managers based on their leadership style. The Multifactor Leadership Questionnaire (MLQ) will be used to identify leadership style.

PROCEDURES

For Nurse Managers

If you agree to participate in this study, you will be asked to complete a demographic survey to determine your eligibility to participate in the study. After eligibility is determined, you will be asked to sign this consent form indicating your agreement. Next you will then be given an alpha numeric identifier and asked to complete the MLQ a 45-item Questionnaire and to attach your alpha numeric identifier to your survey. The survey will be placed in an envelope that will be provided for you by the investigator. The alpha numeric identifier should also be affixed to the outside of the envelope in the space indicated. You will then be informed of the date and time that the investigator will come to your facility to meet with you and your immediate supervisor. Once all questionnaires have been completed (by the nurse manager and their immediate supervisor), the nurse manager will attend 7 education sessions that will last 2 hours. Instructions will be sent via mail correspondence of specific time and location of education sessions within 10 days of all scheduled sessions. You are not required to bring any materials or information with you to the education sessions; all materials will be supplied as well as refreshments. Upon completion of the last session and 30 days after completing the education sessions, both you, your immediate supervisor will complete the 45-item MLQ survey again.

If you do not meet the inclusion criteria for this study, you will be offered the results of your MLQ self assessment along with instructions for interpreting your results. You will also be offered time to meet with the investigator to further explain your results if needed.

For immediate supervisors

If you agree to participate in this study, you will be asked to complete the MLQ a 45-item Questionnaire for Raters. You will be given an alpha numeric identifier to affix to the outside of your envelope in the space provided. This identifier will match the alpha numeric identifier of the Leader you are evaluating . You will then be informed of the date and time that the investigator will return to your facility to re-administer the 45-item MLQ survey.

TIME COMMITMENT

The pre test questionnaire will take about 30 minutes. The leadership education program will span a 2 month time frame. Each session will last 2 hours and occur weekly. There will be a follow up Questionnaire to be completed by all participants, which will also take about 30 minutes.

RISKS

There is no anticipated physical risk or discomfort to subjects. If you are a nurse manager, about 16 hours of your time is required for completion of the pre and post assessment and the leadership education program. If you are an immediate supervisor of a nurse manager, about two hour of your time is required for completion of the pre and post assessment.

BENEFITS

You may receive no direct benefit from being in this study; however, your being in the study will assist in generating knowledge regarding evidence-based management for healthcare leaders.

ALTERNATIVES

The only alternative is not to take part in this study.

STUDY WITHDRAWAL

Your participation in this study is voluntary. Your right to decline participation will be respected without any jeopardy to you or your employment. However, participants may be withdrawn from the study by the investigator for inability of subject to maintain appointments and/or noncompliance with the protocol.

IN CASE OF INJURY

If you suffer any injury as a result of taking part in this research study, please understand that nothing has been arranged to provide free treatment of the injury or any other type of payment. However, all needed facilities, emergency treatment and professional services will be available to you, just as they are to the community in general. You should report any injury to Rose Senegal at number provided and to the Committee for the Protection of Human Subjects at (713) 500-3985. You will not give up any of your legal rights by signing this consent form.

CONFIDENTIALITY

Your participation in this study is voluntary. Any information you may disclose during the course of this study will be kept confidential and will not jeopardize you or your employment. You will not be personally identified in any reports or publications that may result from this study. Any personal information about you that is gathered during this study will remain confidential to every extent of the law. A special number (or code) will be used to identify you in the study and only the investigator will know your name.

COSTS, REIMBURSEMENT, AND COMPENSATION

Each nurse manager participant will be given a $10 gasoline voucher at the end of each leadership education session and a 30 minute massage coupon from the Memorial Hermann Wellness Center upon completion of the study.

Each immediate supervisor that participates in this study will be given a $10 gasoline voucher after completing the post MLQ.

SIGNATURES

Taking part in this study is your choice. If you sign this form it means that you wish to take part in this research study. Sign below only if you understand the information given to you about the research and choose to take part. Make sure that any questions have been answered and that you understand the study. If you have any questions or concerns about your rights as a research subject, call the Committee for the Protection of Human Subjects at (713) 500-3985. If you decide to take part in this research study, a copy of this signed consent form will be given to you.

_____

Printed Name of Subject

_____ _____

Signature of Subject Date

_____

Printed Name of Individual Obtaining Consent

_____ _____

Signature of Individual Obtaining Consent Date

CPHS STATEMENT:

This study (HSC-MH-07-0366) has been reviewed by the Committee for the Protection of Human Subjects (CPHS) of the University of Texas Health Science Center at Houston. For any questions about research subject's rights, or to report a research-related injury, call the CPHS at (713) 500-3985.